

college **AND UNIVERSITY** **business**

DECEMBER 1959

Is This Meeting Necessary?

Essentials of a Safety Program

Health Service Buildings at Two Universities

Survey of Custodial Services

Financial Control at Low Cost



FLINT COMMUNITY COLLEGE AND CULTURAL CENTER, FLINT, MICH. (p. 38)

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SOLID PLASTIC TOPS
AND PANELS



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by *Royal*

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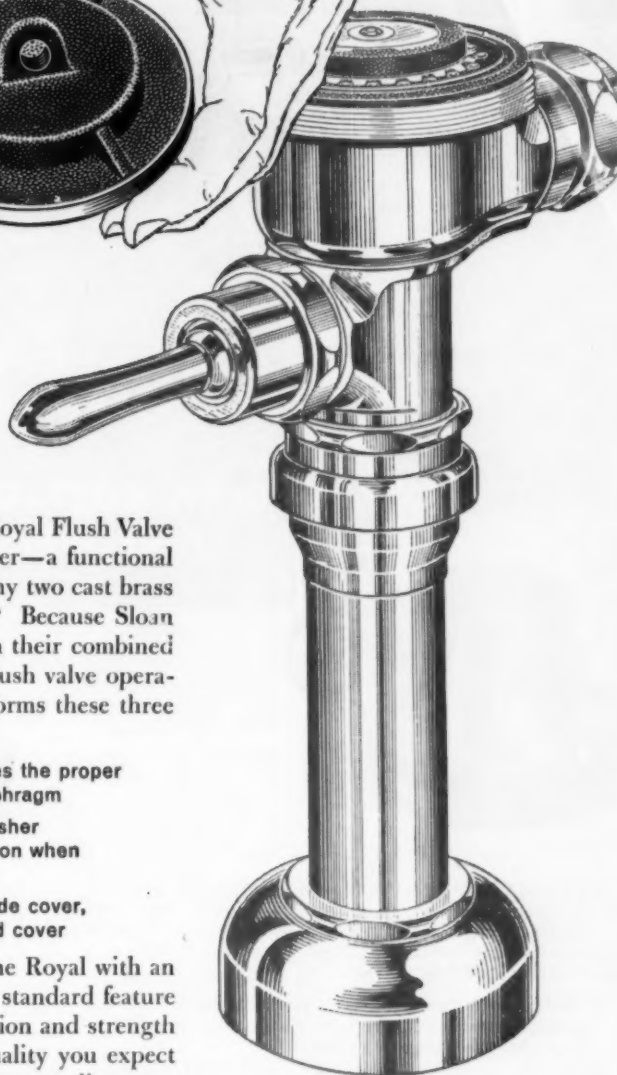


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AMONG THE AUTHORS: Raymond W. Kettler, newly named vice president-finance for the University of California, discusses the financial problems peculiar to a multicampus university. Before receiving his present appointment, Mr. Kettler served several years as controller for the Board of Regents of the University of California. . . . John Morris, safety coordinator of the University of Illinois, speaks on the necessity of a campus safety program out of an extensive experience in the field of campus safety. Prior to his present appointment he was safety officer of the University of Minnesota. He is chairman of the campus safety association of the National Safety Council. . . . Ways to make food service attractive for students in college residence halls is discussed by Maxine Wilson, director of food service for residence halls at Purdue University.



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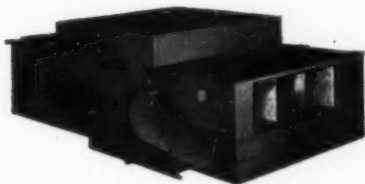
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QUESTIONS AND ANSWERS

Charging Depreciation

Question: We see the advantages and disadvantages of charging depreciation and maintaining reserve for depreciation accounts, but have failed to find a conclusive answer that will satisfy our auditor, who advised that we depreciate property as is the custom in industrial accounting. May we carry all furniture and equipment at cost, but record them in a supplementary record so that, for insurance purposes, a blanket depreciation may be computed? — F. M., Wis.

ANSWER: Although generally accepted accounting principles for business enterprises organized for profit require the use of depreciation accounting, no such requirement exists for universities. Paragraph 5 of the introduction to *Accounting Research Bulletin No. 43* issued in June 1953 by the committee on accounting procedure of the A.I.C.P.A., states that the "opinions and recommendations (of the committee) are directed primarily to business enterprises organized for profit."

Volume 1 of "College and University Business Administration" states on page 151 that "educational institutions will find little or no benefit from the annual computation of, and accounting for, depreciation on their educational property." Inasmuch as the recommendations of the last named publication are now commonly followed, they are "generally accepted accounting principles." Your auditor, therefore, ordinarily would not be in a position to require that you reflect depreciation on educational property in your published financial statements in the manner of industrial and other enterprises organized for profit.

While depreciation on educational property is not ordinarily recorded in university accounting, depreciation on property used by the auxiliary enter-

prises and property held as an investment of endowment funds is recommended. In these cases it is recommended that the depreciation so recorded be funded by setting aside cash for eventual replacement of the assets being depreciated.

Depreciation on educational property can be calculated and the amount arrived at can be used for insurance and other purposes. The method of calculating depreciation for these purposes is fully discretionary on the part of the university but, at the same time, the method should be systematic and rational so as to afford useful and not misleading information. — GEORGE F. BAUGHMAN, *vice president and treasurer, New York University.*

Canned Goods Inventory

Question: In operating a college food service facility, how large an inventory should be maintained on canned goods and boxed groceries? Should these be purchased on an annual basis or at more frequent intervals during the year? — D.M. Ill.

ANSWER: No set rule can apply as to the method of purchasing canned goods and size of inventories maintained. Each manager has a specific situation and must work out procedures suited to his individual operation.

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We have found this kind of contract to show a great saving as well as ensuring quality.

If it were necessary to purchase the entire quantity in one shipment, one would have to be sure of proper storage space with proper temperatures and adequate ventilation. With these facilities available it would pay to carry larger inventories if necessary. — CATHERINE HARPSTER, *Drake University.*

If you have a question on business or departmental administration that you would like to have answered, send your query to COLLEGE and UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Ill.



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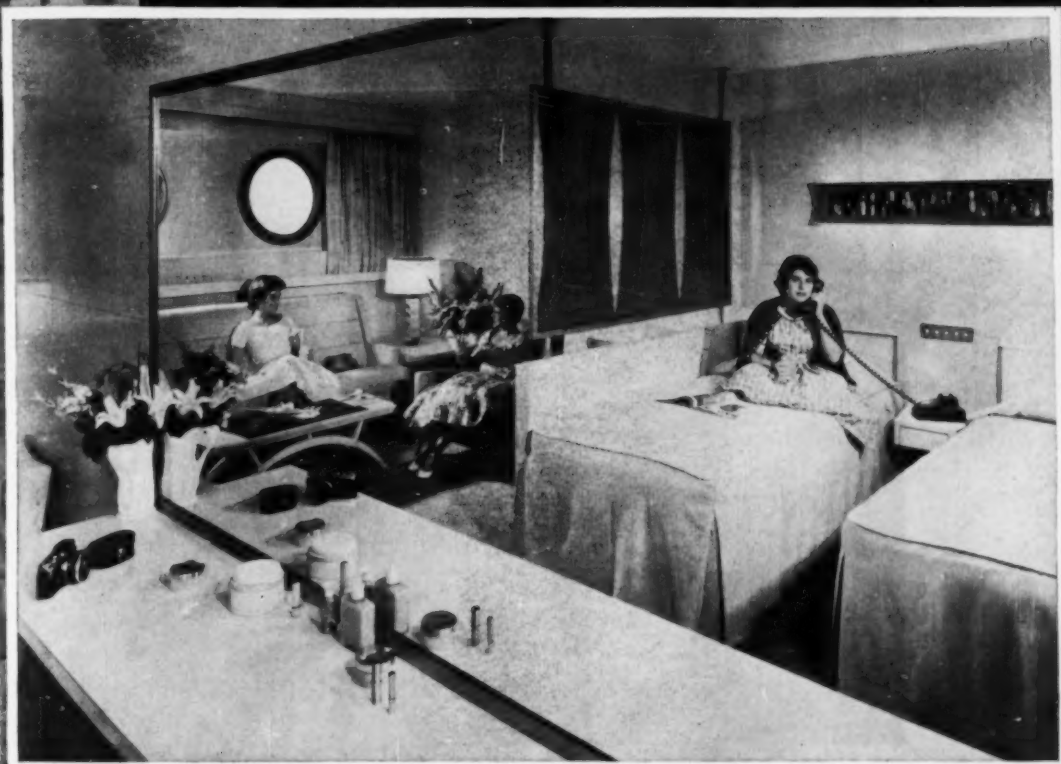


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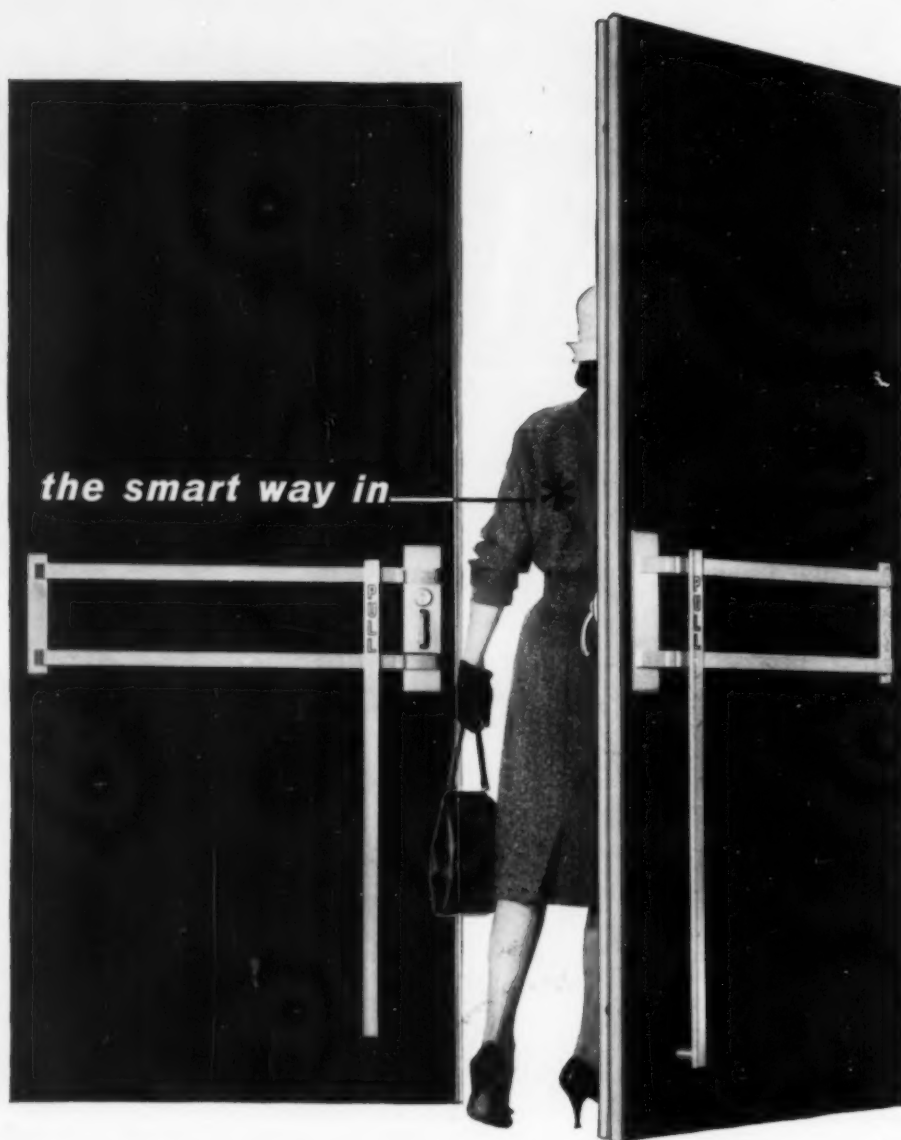


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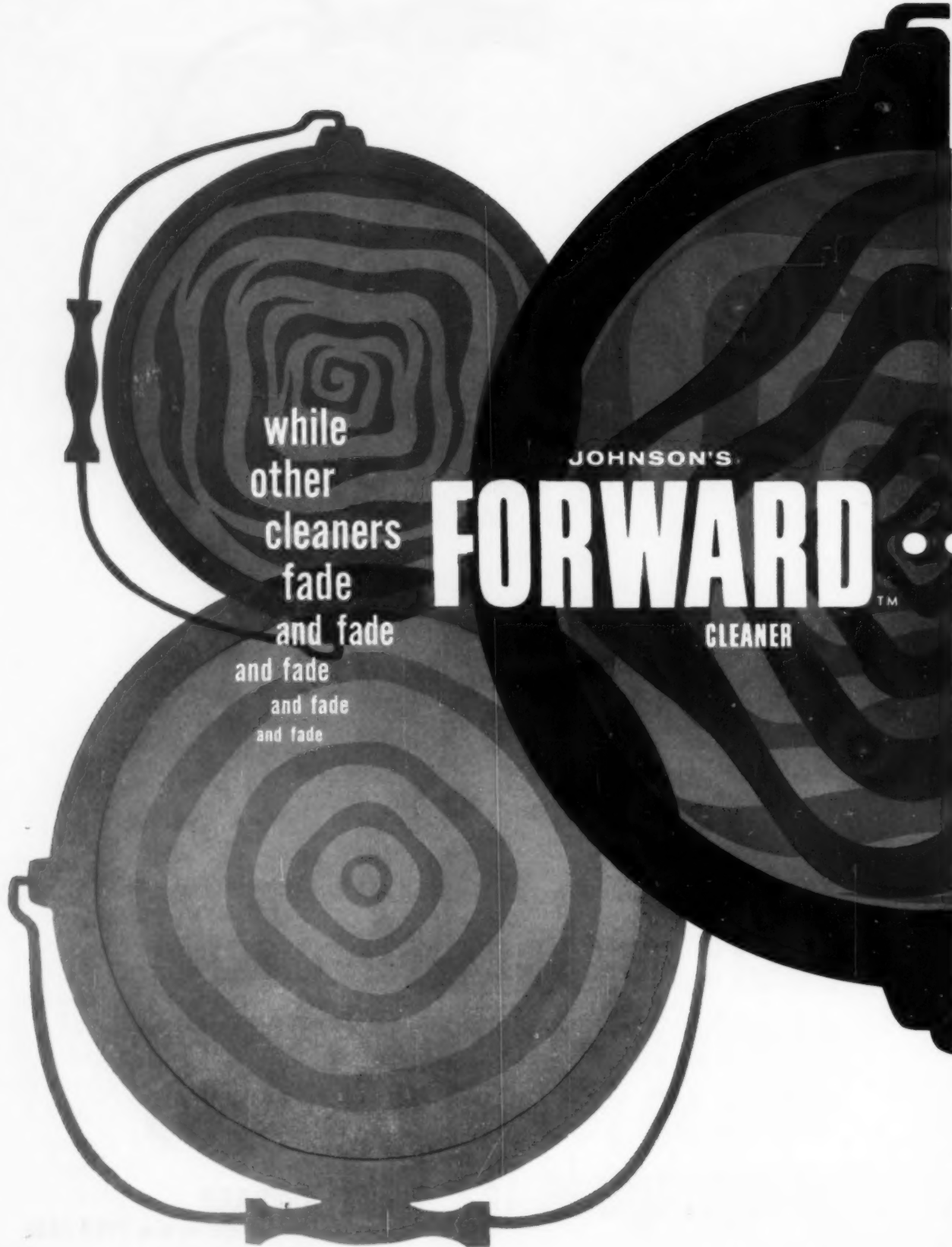


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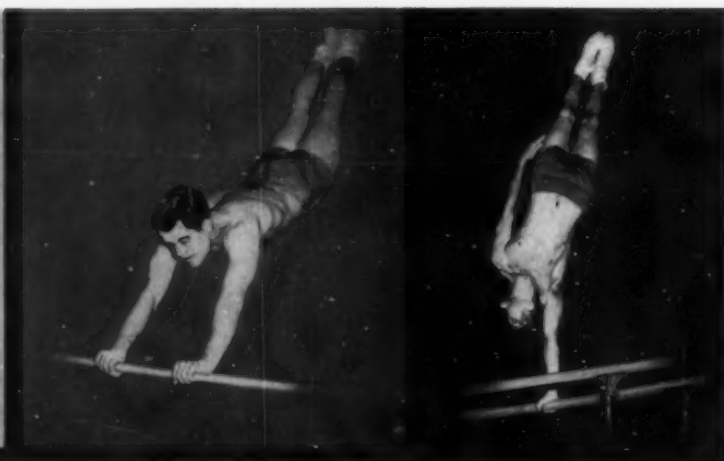
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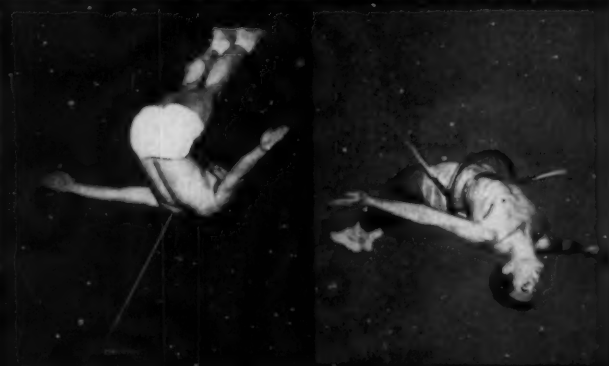
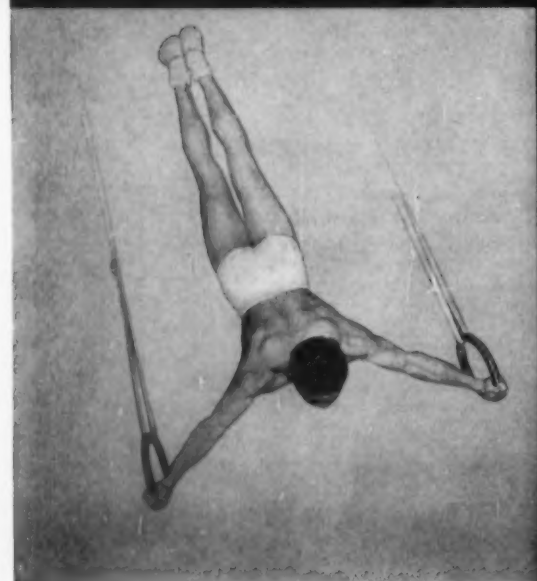
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What Is the Function of the College Union?

GORDON L. STARR
Director, Department of Student Unions
University of Minnesota, Minneapolis



THE seeds of the present-day college union date back to the early Nineteenth Century when the Prince of Wales donated 100 pounds for furnishing the "Attic Society," forerunner of the college union at Oxford University, England. Today, buildings specially designed to fulfill social, recreational and cultural needs stand on campuses in many parts of the world.

Many millions of dollars have been invested in college unions in the United States. The operating budgets of these facilities are expanding each year. In the Big Ten universities alone, the gross income from food service and incidental fees amounts to more than \$10 million annually. Regardless of size, each institution of higher learning is finding a need for the program and service of a college union.

These buildings are not always known as "unions." Some colleges have designated them as "halls" or "centers." The buildings may vary from campus to campus as to their facilities, services and operating policies. Governing organizational setups and program offerings differ widely. In fact, college administrators, faculty members, and students have been prone to think too narrowly about the proper function of the college union.

Ask a number of individuals on your own campus and you will see how varied the answers can be. The alumni secretary may think chiefly in terms of a building to provide facilities for alumni meetings. The controller may be overly concerned with a balance sheet for food service, hotel rooms, and other sources of income and avenues of expense. The faculty member, unfamiliar with the programs that contribute to the total development of the student, may think in terms of the union as a hindrance to academic course work.

The public relations officer may think more in terms of how the college union can best help his program. The dean of students may look upon the union as a place where students may "major" in activity instead of going to the counseling office to be guided into purely academic areas.

The student point of view may single out such matters as the high cost of food or the use of the building by other than students "too much of the time."

In an effort to crystallize thinking about the function of a college union, the Association of College Unions in 1956 adopted a statement on "The Role of the College Union." This four-point approach brings the union idea into clearer focus than it has ever been before:

"1. The union is the community center of the college, for all the members of the college family — students, faculty, administration, alumni and guests. It is not just a building; it is also an organization and a program. Together they represent a well considered plan for the community life of the college.

"2. As the 'living room' of the 'hearthstone' of the college, the union provides for the services, conveniences and amenities the members of the college family need in their daily life on the campus and for getting to know and understand one another through informal association outside the classroom.

"3. The union is part of the educational program of the college.

"As the center of college community life, it serves as a laboratory of citizenship, training students in social responsibility, and for leadership in our democracy.

"Through its various boards, committees and staff, it provides a cultural, social and recreational program, aiming to make free-time activity a cooperative factor with study in education.

"In all its processes, it encourages self-directed activity, giving maximum opportunity for self-realization and for growth in individual social competency and group effectiveness. Its goal is the development of persons as well as intellects.

"4. The union serves as a unifying force in the life of colleges, cultivating enduring regard for loyalty to the college."

The college union must balance its budget in line with the fiscal officer's requirement. It must give assistance to the total college public relations program. It must play a part in the coordinated counseling program. And for the benefit of all on the campus, it must educate everyone in sharing the use of union facilities. Only in this way can the union fulfill its over-all purpose of functioning as an important service to the entire campus.

LOOKING FORWARD

Shorter and Better Meetings

A RECENT copy of "Notes and Quotes," published by the Connecticut General Life Insurance Company, summarizes an article by Osmund Turner that appeared in *American Business* on how to hold fewer and better staff meetings. Administrators in higher education could profit from Mr. Turner's advice:

"It is time we put democracy in meetings into its proper place and use meetings efficiently to communicate information or to draw information from the people present. We should seek to have a permissive atmosphere but to make it clear that it is the leader or chairman who will make the final decision. He must be able to form 'the majority of one.'"

Author Turner goes on to point out that if this is not done, five results follow: (1) inefficiency, (2) waste of money, (3) frustration among the members at the meeting, (4) misuse of the meeting by weak executives, and (5) emergence of cabals, secret decisions, and policy making. He points out that in many cases a problem is better solved without calling a meeting. An executive should decide whether a meeting is the best way to solve a problem. Meetings cost money in terms of time invested by those participating and should be budgeted as an administrative expense, Mr. Turner declares.

To avoid waste of time and money and to achieve control of costs indirectly involved in the holding of meetings, Mr. Turner points out that six vital points must be considered: (1) The leader must prepare. (2) All material for discussion must be structured. (3) The limits of discussion must be put to the members before the meeting. (4) The leader must keep the meeting on the right course throughout. (5) The leader must sum up and indicate future action. (6) He must follow up this action and ensure that it is promptly completed.

These suggestions in some cases may sound blunt and arbitrary, but it might prevent a committee from becoming something that "keeps minutes and wastes hours"! Such procedures suggest an economy in administrative costs in terms of time and money that merits serious attention.

Going It Alone

D R. J. LLOYD TRUMP of the University of Illinois has concluded that if education is really sound, the student should be able to "go it alone."

He is of the opinion that our educational system discourages independent study: "Instead of encouraging independent study, we mother the student at every step of the journey. We ring bells to send him to class. We lock the doors of the library so he cannot get in. We organize in-

struction so thoroughly that there are few opportunities for growth of independent responsibility. Then we wonder why, when the student goes out on the job after graduation, he shows so little initiative. Much of our education is organized so that the more education you have, the more closed your mind becomes. Some Ph.D.'ers seem to have closed their minds to where they can appreciate only their own ever-narrowing fields of specialization."

These observations suggest that a candid reappraisal of our processes of higher education is very much in order. Maybe a self-study analysis of the institution might suggest areas in which the institution should make radical changes in order to improve the academic bill of fare.

Walking a High Picket Fence

THE public relations firm of Gonser & Gerber has made some trenchant observations on the hazards of a college presidency.

"It's no easy task . . . It requires him to be an educational leader, a financial wizard, and a public relations expert . . . Many of the problems of the college president are inherent in the method of his selection. In business, a man taking over the presidency of his corporation has been trained for the job for years. He has had several key roles on the management team. He has had a chance to see the big picture and be a part of it.

"This is not so in education . . . even in institutions with multimillion dollar budgets. A man who is known to have his eye on the presidency or who is being groomed for it earns the undying opposition of several important publics and finds his path inexorably blocked. . . .

"Usually he [the president] is a specialist who has been devoting his career to learning more and more about less and less. The abrupt transition to the position of president and the responsibility for the entire scope of the institution finds him knowing less and less about more and more. . . .

"The demands placed on higher education make the job of college president most difficult. Yet it is far from a thankless job. In fact, there are few positions to which society gives more recognition. . . . This may be what prompted John Erskine to observe that being a college president was like a small boy walking a high picket fence — thrilled, but in constant danger of being impaled."

To which many college presidents say — "Amen." But despite all these hazards, about 350 new college presidents are recruited each year, and they find these challenges exciting. Society can consider itself fortunate that this hit-and-miss method of selection has worked out as well as it has. It's about time, however, that a foundation financed a study to find a better way for the lightning to strike.

Some striking relationships:

Median Family Income

The Cost of Living

Tuition and Fee Charges

LANORA G. LEWIS

Research Assistant, Division of Higher Education
Department of Health, Education and Welfare, Washington, D.C.

THAT tuition and required fee charges have increased rapidly in recent years is well recognized, especially by parents whose children are enrolled in institutions of higher education. The possibility that such increases may materially affect the balance between the public and private sectors of America's unique pattern of higher education could have important implications for the national welfare and security.

This brief statement essays the trend of institutional tuition charges, separately for publicly and privately controlled institutions, in comparison with the cost of living index and median family incomes over the last 20 years.

Detailed information concerning the trend of these four variables between 1939 and 1958 are given in the table and graph on pages 20 and 21. Median incomes for families with heads between 35 and 54 years of age, the period during which most parents are faced with the expenses of higher education for their children, are from the U.S. Department of Commerce, and the cost of living index is from the bureau of labor statistics, U.S. Department of Labor.

Mean institutional tuition rates are for the *same* 196 representative institutions of higher education for which continuous data were readily available. These institutions account for approximately 55 per cent of the nation's total undergraduate enrollment. These figures may be accepted with a substantial degree of confidence as a fair estimate of aver-

Family Income and Fees, Cont.

Table 1 — Comparison of Median Income of Families With Heads Aged 35 to 54, the Cost of Living, and Mean Institutional Tuition Charges, 1939-58

Year	Median Family Income, Heads — 35 to 54 Years of Age ¹			Mean Institutional Tuition and Required Fees ²			
	Amount	Per Cent Relative to 1939	Cost of Living Index ³	Public Institutions		Private Institutions	
				Amount	Per Cent Relative to 1939	Amount	Per Cent Relative to 1939
1958	—	—	208	\$179	229	\$820	265
1957	\$5560	380	202	168	215	741	239
1956	5383	368	196	155	199	690	223
1955	4987	341	193	147	189	638	206
1954	4719	323	193	135	173	590	190
1949	3393	232	171	112	144	465	150
1945	3059	209	130	—	—	—	—
1939	1462	100	100	78	100	310	100

¹Median family income figures since 1945 from Current Population Reports, Consumer Income, U.S. Department of Commerce, Series P-60, include all families with heads 35 to 54 and all types of income. Median family income for 1939, calculated from Family Wage or Salary Income in 1939, U.S. Department of Commerce, Bureau of Census, includes wages and salary income of families with male heads age 35 to 54, wife present.

²Cost of living index from bureau of labor statistics, U.S. Department of Labor.

³For the academic session beginning in September of the years indicated. Mean tuition charges for 196 representative institutions from 1939 through 1954 are taken from Trends in Tuition Charges and Fees, Annals of the American Academy of Political and Social Science, 301:148-64 (September 1955), by Herbert S. Conrad and Ernest V. Hollis. Data for 1955 through 1958 are for the same 196 representative institutions.

age tuition charges in publicly and privately controlled institutions during the period under discussion.

An objective look at institutional tuition charges in relation to family incomes and cost of living during the last 20 years indicates three important facts: (1) the rate of increase in mean tuition has not been so rapid as the increase in family incomes; (2) in terms of 1939 prewar base figures, the rate of increase in tuition charges lagged behind the cost of living index until about 1954 and then rose sharply ahead of it; (3) mean tuition charges as a per cent of median family income declined between 1939 and 1954. Although the mean tuition charge has since been rising at a rate faster than either family income or cost of living, it still does not represent as large a portion of median family income as it did in 1939.

For ease of comparison, the prewar year 1939 (1939-40) was selected as the base year and percentages of increase were calculated relative to that year.

Between 1939 and 1957, mean institutional tuition charges rose from \$78 to \$168 (or to 215 per cent of 1939 mean charges) in publicly controlled institutions and from \$310 to \$741 (or to 239 per cent of 1939 mean charges) in privately controlled insti-

tutions. During the same period, median income of families with heads between 35 and 54 years of age rose from \$1462 to \$5560, or to 380 per cent of 1939 median family income.¹ In other words, during the 20 year period, while average tuition charges were slightly more than doubled, median family income more than tripled.²

Taxes Likely To Increase

In spite of this increase in median family income, the heavy impact of taxes in recent years has materially affected the net discretionary income of families. The burden of taxes for all governmental services — federal, state and local — is likely to increase during the coming decade. Moreover, the larger postwar families and the increased demands for higher education will add to the burden of financing the education of more young people per family and the longer programs of education many of them will pursue.

A comparison of tuition increases to the cost of living index for the period under discussion may add some light, although not necessarily justification, to parental attitudes toward tuition increments. While family incomes generally have risen faster than the cost of living index, especially in recent years, the rate of increase of tuition fees lagged behind the cost of living

index until the mid-1950's and then rose sharply ahead of it. This increase followed the so-called "veterans' bulge" between 1946 and 1954, when increases in the cost of living exceeded increases in tuition fees and tuition was a substantial education bargain.

Actually, in spite of the fact that average amounts charged for tuition doubled, they represented a smaller relative portion of 1957 median family income than they did in 1939. For example, in publicly controlled institutions, the mean tuition charge represented only 3 per cent of median family income in 1957 as compared to 5 per cent in 1939; and in privately controlled institutions, the mean tuition charge represented 13 per cent of median family income in 1957 compared to 21 per cent in 1939.

Although the rate of increase in mean tuition fees outstripped the rise in the cost of living index between 1954 and 1957, the dollar increase in mean tuition charges during those years represented an addition of less than 1 per cent in its portion of median family income. It is possible that this may have been particularly noticeable to parents of college students because it followed a rather long period during which incomes had increased rapidly while the percentage ratio of tuition to median income had actually declined.

It is not the purpose of this article to justify tuition rises or to argue the many issues relating to the ideal of tuition-free public higher education. Although these data may be consoling to those institutional officials who must establish and collect institutional charges for tuition fees, they should not necessarily be construed to suggest that the average parent has found meeting these costs easier.

For example, recent studies indicate that institutional room and board and other college expenses are consistently higher than are charges for tuition and fees, and the parents do not always distinguish between these items. According to Ernest V. Hollis,³ who studied the costs of attending college of more than 15,000 single undergraduate students in 1952-53: "It was the cost of living at college rather than educational costs that made it so difficult for low-income families to finance attendance of a son or daughter

at most colleges. Living costs consumed five-sixths of the average budget of students who attended public colleges, and two-thirds of the budget of those who attended private institutions."

Although tuition charges vary widely, there always has been a fairly large gap in the average amount of tuition

charged by publicly controlled and privately controlled institutions. The Ifert study,⁴ based on a sampling of more than 12,000 students who entered 147 higher institutions in the fall of 1950, pointed out that average family incomes for students in privately controlled institutions was \$1327 higher than average family incomes

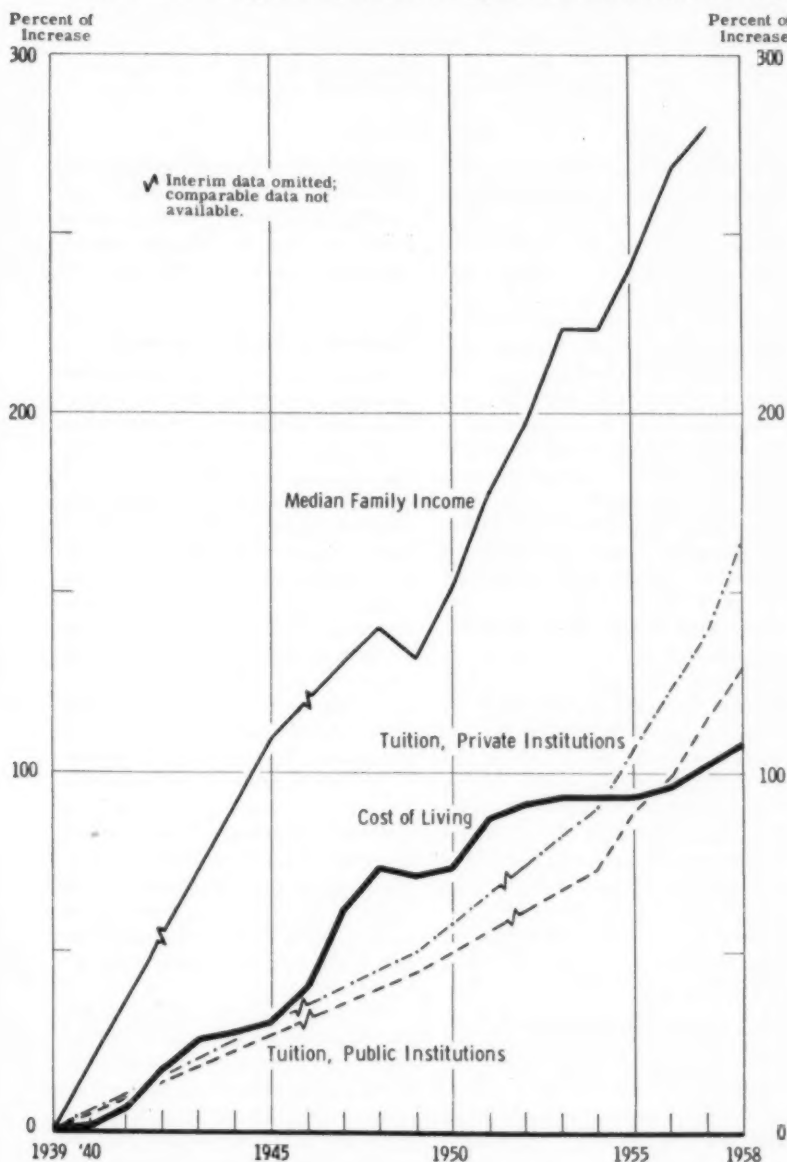
for students in publicly controlled institutions, an amount representing more than the average total cost in 1952-53 of attending the average publicly controlled institutions. Thus, on the basis of median family incomes of their respective student bodies, the gap between the average public and private institutions in their ratios of tuition charges to median family incomes is not so large as Table 1 might seem to indicate.

From all sides, we hear pleas for increased educational opportunities to develop the nation's brainpower potential for continued economic progress and national security. In spite of the generally rising family incomes, recent estimates indicate that from 175,000 to 200,000 superior high school graduates each year fail to continue their education primarily because of financial need.⁵

Although institutional tuition charges are an important factor to be considered in the costs of attending college, they are by no means the only factor. Office of Education studies show a substantial increase in the number and amount of institutional scholarship assistance between 1950 and 1956, but the increase in the average scholarship has not kept pace with the increase in tuition fees. In fact, 76 per cent of the scholarships awarded in the 1955-56 academic year were for grants of less than \$375.

Unless a student and his family already have considerable resources to cover the other costs of attending college, a scholarship sufficient to pay his tuition can do little to bridge the gap.

Per cent of increase in median family income, cost of living, and mean annual tuition charges in institutions of higher education, 1939 to 1958.



Prepared from data compiled by J. Harold Goldthorpe, specialist in higher education, and Lanora G. Lewis, research assistant, U.S. Office of Education.

³During this period, median income of all families increased to 391 per cent of 1939 median income, from \$1272 to \$4971.

²The year 1958 saw still further increase of mean tuition charges by these institutions. Median family income data for 1958 are not yet available.

³Hollis, Ernest V. and Associates: *Costs of Attending College*. Office of Education Bulletin 1957, No. 9. Washington, D.C.: U. S. Department of Health, Education and Welfare, 1957, p. 25.

⁴Ifert, Robert E.: *Retention and Withdrawal of College Students*. Office of Education Bulletin 1958, No. 1. Washington, D. C.: U. S. Department of Health, Education and Welfare, 1957, p. 104.

⁵Derthick, Lawrence G.: *Commissioner of Education's statement before subcommittee on special education, Committee on Education and Labor, House of Representatives*, Feb. 5, 1958. Also, Cole, Charles C. Jr.: *Encouraging Scientific Talent: A Study of America's Able Students Who Are Lost to College and Ways of Attracting Them to College and Science Careers*. College Entrance Examination Board, 1956; and a considerable number of similar state and city studies.

MULTICAMPUS UNIVERSITIES

and the Administration of Their Finances

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Vice President-Finance
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THREE distinct areas of financial administration must be considered at any institution operating as a single college or university on a multicampus basis. These include (1) campus and universitywide processing of financial documents, (2) campus and universitywide management reporting, and (3) internal audit and reporting to the governing board. It is readily apparent that in the first two the problem of centralization *versus* decentralization must receive careful consideration.

Under a so-called system of higher education that involves separate and reasonably autonomous institutions, most of the financial documents may be processed locally. Each institution may maintain its own books of account, establish budgetary control, pre-audit expenditures, develop forms for employment and completely process such forms, initiate and completely process budget transfers, and disburse funds all within broad policies established by a governing board and in accordance with rules and regulations developed for the particular institution. To what extent can complete responsibility for such processing be delegated to local campus officers in a multicampus university?

What Can Be Delegated?

The extent of delegation will depend partly upon availability of local facilities and manpower, the degree of uniformity that can be established, the

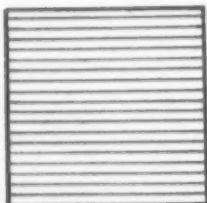
need for information at the local campus level and universitywide level, and the extent of the authority of the chief executive to delegate any responsibility granted to him in the by-laws of the institution.

Tabulating Centers Advised

Budgetary control on a local campus basis appears at first to be perfectly logical. However, there may be some complications based largely upon economy and the availability of equipment. The institution as a whole might maintain punched card records but a complete punched card installation would obviously be too costly for a small campus. Thus one or two tabulating centers might be established to provide service for several campuses on a regional basis.

Vendor checks and payroll checks also might be written at these tabulating centers, but pre-audit of expenditures can be done at each campus. Employment forms in some instances can be completely processed at a local level. However, the problem of budgetary control and the necessity of top approval for certain appointments involving tenure may require consideration at the universitywide level of administration.

The budget of any college or university should be the responsibility of the chief executive of the institution. While he may delegate to local administrative officers authority to make minor modifications, major budget transfers or changes should be made only with the approval of the chief executive. This is necessary to assure opti-



From a paper presented at the Southern Association of College and University Business Officers, Dallas.



Yesterday's swamp could be tomorrow's campus as hordes of new students require new programs, new teaching centers, and new branch campuses.

mum use of all institutional resources on a universitywide basis.

The problem of management reporting on a campus and on a universitywide basis is somewhat less complicated than that of processing financial documents. Local campus administrative officers must of necessity have periodic information relative to budget status, operation of hospitals, stores, other service enterprises, residence halls, dining halls, and other auxiliary enterprises. Most management reports for individual campuses can be prepared by the campus representative of the controller, if financial administration is separate from business management, or by the chief campus business and financial officer if the functions are combined. The reports for campus administrative officers should be timely and should include suitable comments that will be helpful in interpreting the results of operation.

Periodic and Summary Reports

Since certain operating policies may be established on a universitywide basis, appropriate universitywide officers may also require periodic management reports in order to be certain that policies are followed uniformly on all campuses. For example, a single bond issue may be used to cover construction costs of residence halls and dining halls on a number of campuses. Uniform operating policies must be established for the institution as a whole in order that each unit provides for repayments of its share of the indebtedness. Universitywide officers will re-

quire periodic management reports to assure themselves of continual effective and efficient operation. The chief executive of the institution may also quite properly require periodic summary reports of the result of all operation to date.

These reports may be summarized by campus and then consolidated into a single summary report for the institution as a whole. The reports may well include an estimate of financial condition projected to the close of the fiscal year and may indicate to the chief executive what modifications might be wise or necessary prior to the close of the fiscal year.

Internal Audit Reporting

The functions of internal audit and reporting to the governing board must obviously be centralized for a multicampus institution. Certain aspects of internal audit such as periodic unannounced petty cash counts or personal distribution of salary checks might be conducted by campus administrative officers. Responsibility for periodic review of internal control also should be shared between campus and universitywide officers. However, if the institution actually operates as a single entity, over-all responsibility for the internal audit program should be centralized under a single internal auditor responsible to the chief financial officer if the internal audit program is to serve effectively as a supplement to the annual audit performed by independent accountants. The internal auditor may have members of his staff located on various campuses, but even

so there is some advantage in occasional rotation of staff.

Since periodic and annual reports to governing boards should include a consolidated summary of activities and operation on all campuses, the need here for centralization is apparent. These reports should contain much less detail than those provided for campus or universitywide management but they should disclose the results of operation to date and should be related to the original budget approved by the governing board. The reports may be transmitted to the board through the chief executive or they may be presented directly by the financial officer if he serves as a board officer. In any event, financial data must be recorded on a uniform basis for each campus and thus centralization of authority and responsibility is again important.

Looking to Future Expansion

Reference has been made to only a part of financial administration for a multicampus university. This brief discussion may be sufficient to direct attention to present problems and to demonstrate the need for further study in order to prepare for the impact of substantial expansion that appears inevitable. All of us are aware of the ever increasing amount of paper work and the sometimes justifiable criticism of administrative red tape. It is serious enough at the present and may become much more serious in the future as additional centers or campuses are developed to accommodate additional students. ■

The maintenance of

Law and Order on the Campus

T. E. BLACKWELL

Educational Management Consultant, Washington University, St. Louis

A TEXAS court¹ has declared that university officials have inherent power to maintain proper order and decorum on the campus and to exclude therefrom those who are detrimental to its well-being.

The dean of student life at the University of Texas ordered a former student to leave the campus and gave instructions to the university police to see that he did so. When the individual in question refused to comply with this order, he was arrested by the university police and confined in the court house jail. He was later taken to the Austin State Hospital and dismissed within a few weeks.

Sues for \$200,000

He brought suit against the University of Texas, its dean and assistant dean of student life, the director of the student health center, a member of its medical staff, and the county judge of Travis County for punitive and exemplary damages in the sum of \$200,000 for "false imprisonment, false arrest, libel, violation of civil rights, and for being falsely barred from re-admission to the University of Texas."

The court of civil appeals of Texas, in dismissing his suit, took judicial notice of the fact that the University of Texas is an agency of the state and that its officers are public officers. Based upon these facts, the court ruled that: "... public officers are not liable to individuals for acts done within the scope of their public duties. And if an act is lawful, motive of the actor is immaterial ... school trustees are liable when, and only when, in the exercise

of powers conferred upon them, they have acted willfully or maliciously.

"In our opinion, there is no factual pleading here that appellees, who are employees of the university, have acted in a willful or malicious manner toward the appellant. We believe that it was well within the discretion of the university officials to bar from its campus and from association with its youthful students a man of appellant's age, beliefs, proclivities and so-called principles, when, as appellant's pleadings show, such beliefs were advocated in a manner calculated to be offensive and to interfere with the orderly, peaceful and dignified atmosphere of university life."

The maintenance of law and order on the college campus is an ancient problem. In the early days, college officials, exercising the legal rights and duties of foster parents, enforced student regulations by the use of corporal punishment. Since this is no longer the custom in this country, the implementation of college rules has become more difficult. With the introduction of the motor car to the campus, traffic regulation and parking control have been added to the burdens of the college business officer and his staff.

Threat of dismissal is a potent weapon, but it is too drastic to be invoked for minor offenses. The imposition of fines upon both faculty and students probably can be justified as a means of enforcing reasonable campus regulations, but the legality of the procedure has, apparently, never been vindicated in a modern court of record.

Publicly controlled institutions can invoke the general police powers of

the state itself, but this right is not available to nonpublic colleges. Many have found a partial solution to their problem of law and order by requesting that the members of the campus police force and night watchmen be deputized by the county sheriff and by maintaining a close and friendly relationship with the local police.

The power of a sheriff to appoint deputies is a common law right and, in the absence of constitutional and legislative restrictions, a sheriff has absolute discretion to determine what deputies shall be employed and the length of their service.² Even without this grant of official status, an officer or employee of a college, as a private citizen, may make arrests. At common law, any private person may arrest, without a warrant, one who commits a breach of the peace in his presence,³ or where it is reasonably suspected that a person is threatening to commit a breach of the peace.⁴

Wrongful Arrest Costly

The manual of procedures for the campus police and night watchmen should be reviewed by the college counsel. The penalties for wrongful arrest are severe,⁵ and the officials of privately controlled institutions do not enjoy the legal immunity of public officials, recognized by the Texas court in the current case as the prerogative of the University of Texas officials. ■

¹State v. Griffin, 80 Ohio App. 447, 76 N.E. 2d 294 (1947).

²Malley v. Lane, 97 Conn. 135, 115 Atl. 674 (1921).

³Sloan v. Schomaker, 136 Pa. 382, 20 Atl. 525 (1890).

⁴Corpus Juris Secundus, Par. 85, Wrongful Arrest.

⁵Morris v. Nowoty, 323 S.W. 2d 301 (1959).

A Modern Management Feature



Groups are seldom authentically creative. Imagine a committee painting the Mona Lisa.

IS THIS MEETING NECESSARY?

A veteran of many conferences sounds off on a sore subject — meetings. A certain number of them are necessary, of course, but too often, in his view, they are just another way of saying, "I want my mother."

Roy Pearson

Dean, Andover Newton Theological School, Newton Center, Mass.

LIKE most explosions, mine had a very small trigger. In fact, it all started while I was opening my morning mail, and the significant item was nothing but a notice of a week-end conference. But what set this particular notice apart from the others was the fact that this was a conference on how to hold conferences, and the infinite possibilities which such a concept offered were all I needed for my detonation. If you could have a conference

on how to hold conferences, why not a conference on how to hold conferences; and if you got away with that, there was no limit to the avenues that beckoned your gregarious inventiveness. No more worries about a day without togetherness: You would *always* be together! No more anxiety about spending only half of your life in meetings; now you could spend *all* of it in them!

Before I go any further, I had probably better confess that I am not a well adjusted individual. I get fixations. At the moment, my obsession is

our many-meetinged culture. My other fixations have passed, and perhaps this, too, will pass. In the meantime, here I stand, and if mine is only a voice crying in the wilderness, at least I'll be a nuisance only to myself.

It may provide a little reassurance if I say that I have no desire to be a hermit. In the book, "Executive Action," by Learned, Ulrich and Booz, there is a reference to an executive who had two full-time secretaries to insulate him from his organization. "He could be seen only by appointment for the discussion of a previously

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Secretly we place less faith in our own originality than in that of our co-workers. Fears of this kind account for much of our huddling together.

announced topic. His subordinates discovered that the only place where he could be reached informally was the washroom. Eventually his subordinates took turns rushing into the washroom whenever they saw him enter it." I freely admit more sympathy for the executive fox than for the subordinate hounds, but I also admit that such insulation can seldom be justified.

Meetings have a place in any organization. How else can you hold the organization together? How else can you keep all the constituents constituent? How else can you put reins on the tyrannical and bridles on the irresponsible? How else can you pool diverse resources, fan enthusiasm, or provide the encouragement which prevents individual initiative from starving in its unsupported isolation?

But I sometimes suspect that many of the avid apostles of meetings are like the driver who sideswiped a truck, crashed into four trees, knocked down a telephone guy wire, tore off a length of fence, crunched to a stop against the concrete steps of a house, and explained it all by saying, "My horn got stuck." And when I hear it said that Philip Wylie summarized his own observations on the matter with the trenchant "To hell with togetherness!" I gladly pledge him my allegiance.

The Togetherness Fetish

It is not easy to describe precisely what is happening on the executive level today. From one point of view, the phenomenon is murder: We are killing the minds of our best executives by the multitude of meetings which we crush into their schedules. From another point of view, the process is suicide: The executives themselves are responsible for the meetings that destroy them. But whether by homicide or by self-destruction, the ultimate event is the same, and perhaps the best way to make my meaning clear is to draw a few conclusions from the life I see around me.

For one thing, it seems obvious to me that we have made a fetish of togetherness, elevated group dynamics to the status of a holy cult, and, by insisting that every forward step be taken by a team, guaranteed that some of the most important forward steps will never be taken at all.

Some things can be done in groups—playing hockey, for instance. Other

things are better done alone—writing a poem, for example. The men who delegate responsibility are not always aware that a distinction needs to be made in these matters, and they often display a remarkable suspicion of anything that has an air of individuality about it. They do not seem to understand that if the whole of a group is often greater than the sum of its parts, it is just as often less, and they appear to have few doubts that what cannot be done in a group ought not to be done. In other words, a Heifetz is all right as long as he plays unobtrusively in the orchestra, but let him stand up for a solo, and you bring down the curtain on him. The halfback deserves a mighty cheer when he goes over for the winning touchdown, but only if all the other members of the team crossed the line together with him and each of them had at least one hand on the ball.

But groups are seldom authentically creative. Imagine a committee composing the 23d Psalm, or painting the Mona Lisa, or conceiving a symphony like Beethoven's Fifth. Creating is done by individuals, not groups, and when the group usurps the individual's prerogative, the result is almost always stultification.

Democracy is not a synonym for mediocrity, but it is a rare group which does not move toward a common denominator that lifts the level of the relatively incompetent only by reducing that of the conspicuously able. Groups do not think; they merely accumulate thoughts; and since it is one of the main functions of the group to obtain agreement, it is almost inevitable that the group will be destructive of the nonconformity out of which most new advances have emerged. It puts a fence around the dictator, but it also hamstring the legitimate leader. It gives solace to the mediocrity which is always resentful of excellence, but it also emasculates the excellence which longs for freedom from its bondage to the mediocre. And by condemning the leader always to operate in a group, we deny him the liberty to lead.

Cradle Fears

A second conclusion, to which I have been forced only with the greatest reluctance, is that we are behaving like scared rabbits. In company with most such indictments, this charge is too inclusive to be strictly accurate,

but as a general picture of the emotional climate in executive circles, the statement stands the test. Moreover, it helps explain why the executive tolerates the unproductive meetings whose destructive effects he can recognize.

Some insecurity of this nature is quite clearly related directly to our associates. The higher the hierarchical ladder goes, the narrower it becomes. We want to keep climbing, but so do our associates. Liking them as men, we distrust them as competitors, and a meeting seems a small price to pay for keeping tabs on them, finding out what they are up to, and preventing them from surging too far ahead of us without our knowledge.

But much more of the insecurity is rooted in distrust of ourselves. One of the primary fears of infancy is that of being dropped, and most of us are nearer to the cradle than we think. If we were to speak in semi-theological terms, we should have to say that we are not sure exactly who we are, why we are here, or where we are going. Our own identity is still something of a mystery to us. We have capacities, but we have never quite defined them. And secretly we place less faith in our own originality than in that of our competitors in the company.

If fears of this kind account for much of our defensive huddling together in the business world itself, they account for even more of our subservience to community pressures outside the company. It scarcely needs to be said that an executive will have many proper reasons for taking part in the clubs, welfare groups, and other organizations of the city or town where he has his home, but there is far greater necessity to point out that a great deal of his community service is no more than self-serving. In part, such activity is the conscious effort to further the ambitions either of himself or of his company, but in even larger part, it stems from his unconscious hunger to find support for his belief in himself. His service derives not from his strength but from his weakness.

He joins organizations and accepts their offices for the same reason that the Indian tied the settlers' scalps to his belt or the western gunman carved notches in his gun: His memberships and titles give visible proof of a competence which he never trusts sufficiently to take for granted. He supports the right causes for the wrong

reasons. In fact, the truth is less that he supports the cause than that the cause supports him, and offering himself for membership in a community group, he is often doing no more than repeating the ageless cry of childhood, "I want my mother!"

Souls for Pottage

My third conclusion will probably be even less popular than the others: We are selling our souls for messes of pottage. This is not to say that the life of the business community is not desperately important to ourselves, to business, or to the nation at large. Nor is personal ambition always to be deprecated.

But is there not a mildly needed warning in the fate of the late lamented banker of Amarillo whose friends said that "he wouldn't go to hell for a nickel, but he might fish around the edge until he fell in"?

It is said that one day somebody came to Meyer Guggenheim with a scheme for making money. "See, Mr. Guggenheim," he urged, "what wealth, what power that would give you!" But the old man only stroked his side whiskers and asked, "And then?"

That is a good question. The bigger is not always the better — a case of measles, for instance. The longer is not always the more desirable — a shipwreck on a desert island, for example. The claim is often made that conformity to the feverish madness of the many-meeting culture is the only way to get ahead, but it is a justifiable query whether the prize is worth the price and, even more essential, whether the contemplated process is really getting ahead. The modern executive is not the first man to gain a world by losing his soul; and if we so run that we never rest, if we so talk that we never think, if we so exist that we never live — the result can hardly be an asset to ourselves or, for that matter, to the businesses we serve.

I can only speak for myself, but let it be said that the days increase when it is absence that makes my heart grow fonder. If I go to a conference, I want the reason to be better than my own incapacity for independence. I have warm sympathy with the late Dean Hodges' comment when he was told that heaven was a place where there would be no partings. What he wanted, he said, was a place with no meetings. ■

Internal Auditing

means financial control at low cost

RANDALL N. SAFLUND

Peat, Marwick, Mitchell & Co., Newark, N.J.

AS PROFESSIONAL accountants and auditors we naturally believe that all colleges and universities should use the services that our profession provides. On the other hand, among our clients in this field we are constantly stressing the importance of *internal auditing* and we attempt to strengthen the internal auditing departments wherever we can. Are these ideas contradictory? They may seem so, but actually they are not.

The essence of auditing is objectivity. The internal auditor must be objective to a degree; the "outside" auditor still more so. It follows then that, if the internal auditor relieves the outside auditor of some of the necessary test work, the outside auditor has more time to be objective. He has a better opportunity to weigh and consider the more important problems in the very complex business of the financial management of an educational institution. His client thus gets more benefit from his services.

But relieving the outside auditor of some of his detail is not the sole function of the internal auditor; he has, in addition, a still more important role. The test checking that an outside auditor does must of necessity be on a *periodic* basis. The internal auditor can design his program of testing on a *continuing* basis.

The Institute of Internal Auditors says: "Internal auditing is an independent appraisal activity within an organization for the review of ac-

counting, financial and other operations as a basis of service to management. It is a managerial control which functions by measuring and evaluating the effectiveness of other controls." Thus the internal auditor is the financial officer's insurance that established methods and procedures are working properly and that if weaknesses in them exist they will be disclosed. There are at least six broad areas wherein he can operate effectively.

But before we examine these, let us fix the internal auditor's position within his own organization. It should be obvious that if he is to have any degree of objectivity he must not be responsible to the head of any department he is auditing. The only effective way to implement this requirement is to make him responsible to the highest financial officer. The accompanying diagram shows a partial organization chart of a typical college or university. The internal auditor's function is shown as a "staff" rather than as a "line" department. With this in mind we can now look at the scope of his activities.

The first area of his operations is *internal control*. The American Institute of Certified Public Accountants defines it thus:

"Internal control comprises the plan of organization and all of the coordinate methods and measures adopted within a business to safeguard its assets, check the accuracy

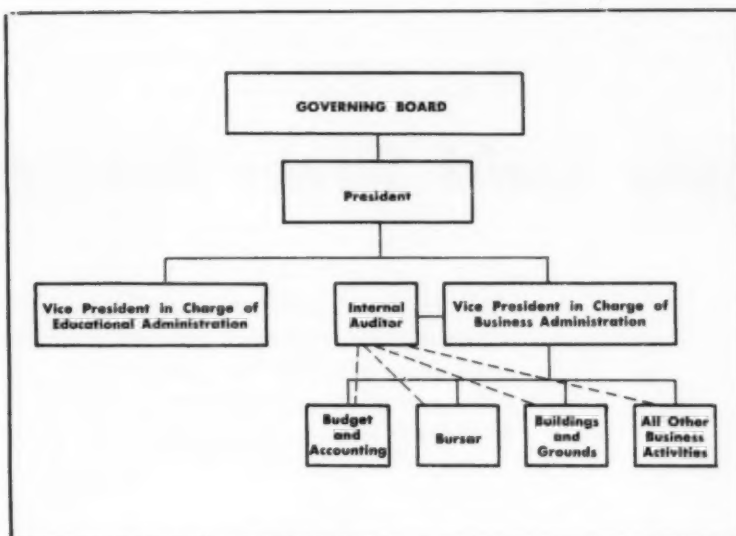
and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies."

It is a standard of performance generally accepted among certified public accountants that it is necessary for the independent auditor to review the system of internal control. He must do this in sufficient detail to enable him to form an opinion as to its adequacy. Using this opinion as a basis, he determines the extent of his auditing procedures. But note that his review need be only such as will satisfy his own purposes. If internal control is weak, he may, nevertheless, by extending the scope of his procedures, be able to render an unqualified opinion on the financial statements. In most cases he will inform his client by letter or memorandum about systems weaknesses discovered by him, but he is not obligated to do so.

Thus, the review by the independent auditor may not be in sufficient depth to satisfy management. Here the internal auditor steps in. He can review all phases of internal control in all departments on a continuing or, to use a better word, a recurring basis. His reports can be more detailed than those of his outside counterpart. Further, he can save some audit expense because the independent auditor will save time by using his reports as a starting point.

Second, the internal auditor is ideally suited by virtue of his "staff" position to conduct surprise cash examinations at various cash collection points. Certified public accountants have been stressing in recent years the value of surprise cash examinations. Among our college clients, we have made such examinations at bookstores, dining halls, and similar facilities with valuable results. In most cases the surprise element has revealed laxities in handling and accounting for cash that would have remained undisclosed by any other auditing procedure. Such examinations can be performed equally as well, at more frequent intervals, and at less expense by the internal auditor.

Third, as a further extension of cash control, the internal auditor can function as a full-fledged control agency. For example, he can review the monthly bank reconciliations prepared in the accounting department and make test checks of cash receipts



Partial organizational chart of a typical college or university

and disbursement records. At one university, the internal audit department has custody of all cash register keys for registers in use at bookstores, dining halls, and snack bars. Periodically, members of the department read and reset the registers, maintaining work papers to control cash receipts independently of the managers of the facilities. This procedure has worked out very well.

A fourth area in which the internal auditor can operate advantageously is in the testing of the multitudinous sources of income usually present at a school of any size. Tuition income, for instance, though not always the largest source of income, is always a significant source. The independent auditor's approach to its verification is to review carefully the billing system in use and, of course, the internal controls built into the system. Depending upon his evaluation of the procedures in effect, he will trace a certain number of students' names through the registration and payment records in order to substantiate these procedures.

This is sound auditing theory, but consider what it means in practice. A 10 per cent sampling of the data (a not unduly large sample) represents, in an enrollment of 6000 students, 600 individual names to check against registration records, billing records, and cash payment records. Among these 600 are certain to be some who are paying on a deferred

payment plan, or who have scholarships, or who have not paid anything, perhaps! All these factors complicate the audit work.

It is obvious that the internal auditor can do a valuable service in assuming a part of this work. Actually, he should do a better job than the independent auditor because it is doubtful that, using the example cited, the independent auditor would feel justified in taking the time to make a 10 per cent test. Also, the internal auditor will gain a familiarity with the records that should make him faster and more efficient than an outsider.

But the internal auditor's verification of income is by no means limited to tuition. By reference to invoices for tickets and counts of unused tickets, he can verify income from athletic and dramatic events. By methods similar to those described for tuition, he can test dormitory, infirmary and hospital income. By reference to correspondence and contracts he can test income from gifts and research projects. In all of these instances, and in others, he is not merely relieving the independent auditor of detail, he is exercising one highly responsible function of management control.

Fifth, the internal auditor has the opportunity to perform similarly in the area of expense control. Again, because of the multiplicity of transactions, the independent auditor can

do little more, in verifying expenses, than to review requisitioning and cash disbursement procedures, and then to verify these by a slight test of actual expenditures. The internal auditor not only can increase the extent of the testing but also can devote particular attention to selected categories of expense. For example, he is ideally placed to determine whether expenditures charged to restricted endowment income are in accordance with the wishes of the donors.

Finally, the internal auditor can be of invaluable aid in the area of systems and procedures. One of his chief functions is to see that established procedures are being operated as intended. A collateral function is to note and disclose any weaknesses in established procedures. The Institute of Internal Auditors maintains that a degree of independence in attitude will be less if the internal auditor originates procedures that he subsequently is required to review and evaluate. This is certainly true theoretically, although in certain instances the concept might practically be modified. In any event, where the independent auditors or other professional consultants are installing new systems or evaluating or modifying existing systems, the internal auditor should without question assist in carrying out the program. When no methods department exists, he might logically prepare and maintain a procedures manual.

It is axiomatic that the tangible and intangible benefits to be derived from a particular department should be greater than the operating cost of that department. (Perhaps it should also be added that the tangible benefits should be greater than the intangible ones!) It has been stressed here that the internal auditor is much more than an assistant to the independent auditor. Were he only such an assistant, the dollar savings resulting from maintaining an internal audit department would be limited merely to the difference between the audit department salaries and professional rates for the same work. When the internal auditor functions as described, with due regard to the concept of *continuing* test check and evaluation, his activities, as we know from experience, result in improved financial control and, in many instances, measurable dollars and cents savings. ■

Rutgers Opens Health Service Building



At this college for men, there is nothing peripheral about health and its relation to education, as the very location of this new building proclaims to all students



EDWARD HURTADO, M.D.
Director of Student Health
Rutgers University, New Brunswick, N.J.

Left: Counter running across width of waiting room, and separating it from the main clerical office, enables receptionist and secretaries to have complete supervision and control over the waiting room while answering inquiries, giving information, making appointments, or directing patients to doctors' offices or to staff nurses. Below: Nurses' treatment room located on the first floor.



Below, left: One of the nine two-bed rooms on the second floor of the health service building. Each double room has bathroom facilities. Below, right: The x-ray room on the ground floor.



RUTGERS, the State University of New Jersey, has completed a Student Health Building which became operational in September. The university's New Brunswick campus, Colleges for Men, will be served by this new health center.

The health service building is expected to provide adequately for a generous program of clinical medical service for at least 10,000 resident students. Certain special services for faculty members and university employees are also included, *i.e.* first-aid and emergency treatment, consultation prior to referral to outside doctor or hospital, inoculations, pre-employment examinations, and periodic check-ups for foodhandlers.

The park-like site for this structure was chosen after exhaustive consideration of several desirable sites. The well chosen location on the campus makes the building accessible to all dormitories, fraternity houses, classrooms, gymnasium, cafeteria and library.

In the words of Dr. D. L. Farnsworth, medical director at Harvard University: "The advantages of a health center centrally located on a college or university campus cannot be overestimated. Even an extra walk of 5 or 10 minutes from the center of an average campus tends to give the impression that the whole health operation is peripheral to education. Furthermore, such a distance prevents

students and faculty from going to the clinic for mild illnesses or injuries."

The building is L-shaped, faces south, and consists of a basement and three stories above the ground. The foundations are strong enough to stand the stress of an additional story.

The architects' (Scrimenti, Swackhamer and Perantoni) specifications read: "The frame of the building will be structural steel with all beams fire-proofed and with concrete floors. The exterior walls are face bricked masonry with interior partitions of plaster on metal studs. The foundation and basement throughout will be reinforced concrete. The ceilings will be acoustical material. Corridor ceilings are removable for access to mechanical equipment, and corridors and special rooms will have vinyl plastic wainscots. The floors, except for the basement and toilet rooms, are resilient floor tile. Toilet room floors and walls are ceramic tile. Interior doors are wood and hollow metal. Windows are aluminum projected. Heating will be by warm air designed so that it may be readily converted to summer air conditioning."

Ground Floor

Campus health service activities are predominantly those of the clinic and office procedure. Accordingly, in our new building, all clinical and laboratory facilities are on the ground floor.

On the basis of recorded clinic visits to the old infirmary, we expect that between 100 and 200 men will be visiting the new clinic each day. Logically, on this floor we must have the appropriate medical setup of offices and workrooms for doctors and nurses, plus all the clinical laboratories and medical equipment necessary to do the work in a modern and up-to-date clinic. In fact, 90 per cent of the doctors' and nurses' services will be rendered to the student body on this outpatient department floor.

The following diagnostic and therapeutic services will be found on the ground floor: physical therapy in all its modalities, hydrotherapy, clinical laboratory service, plaster of paris cast room, transillumination room, basal metabolism diagnostic unit, clinical observation room especially for surgical cases prior to referral to outside hospital, minor surgery, drug room, central sterilization room, electrocardiography and x-ray department. Nurses' workrooms, common cold clinic, doctors' offices, a dental office, the psychiatrist's office, the medical library, and the office of the supervisor of nurses also are a part of this floor.

The traffic situation for doctors, patients and nurses inside the building has been given careful consideration. No matter to what part of the clinic floor the patient may be requested to go for either special services or diag-

nostic procedures, we expect no congestion, confusion or bottlenecks. Each floor will have its own personnel, medicines and equipment.

Lavatory and sanitary facilities for patients and personnel are conveniently located on this floor. From the standpoint of safety, this floor can be quickly evacuated by use of the main

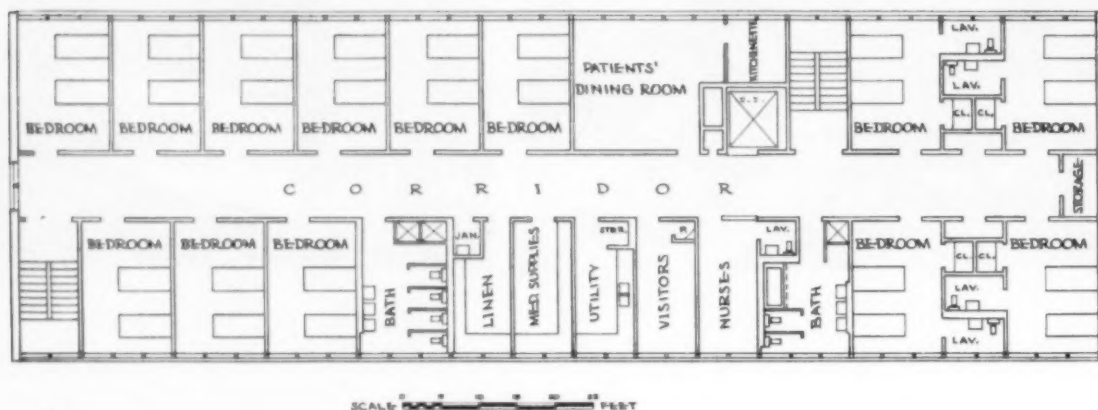
door, which faces the south, the ambulance and taxi door at the eastern end of the building, or the extra emergency exit at the west end.

Second Floor

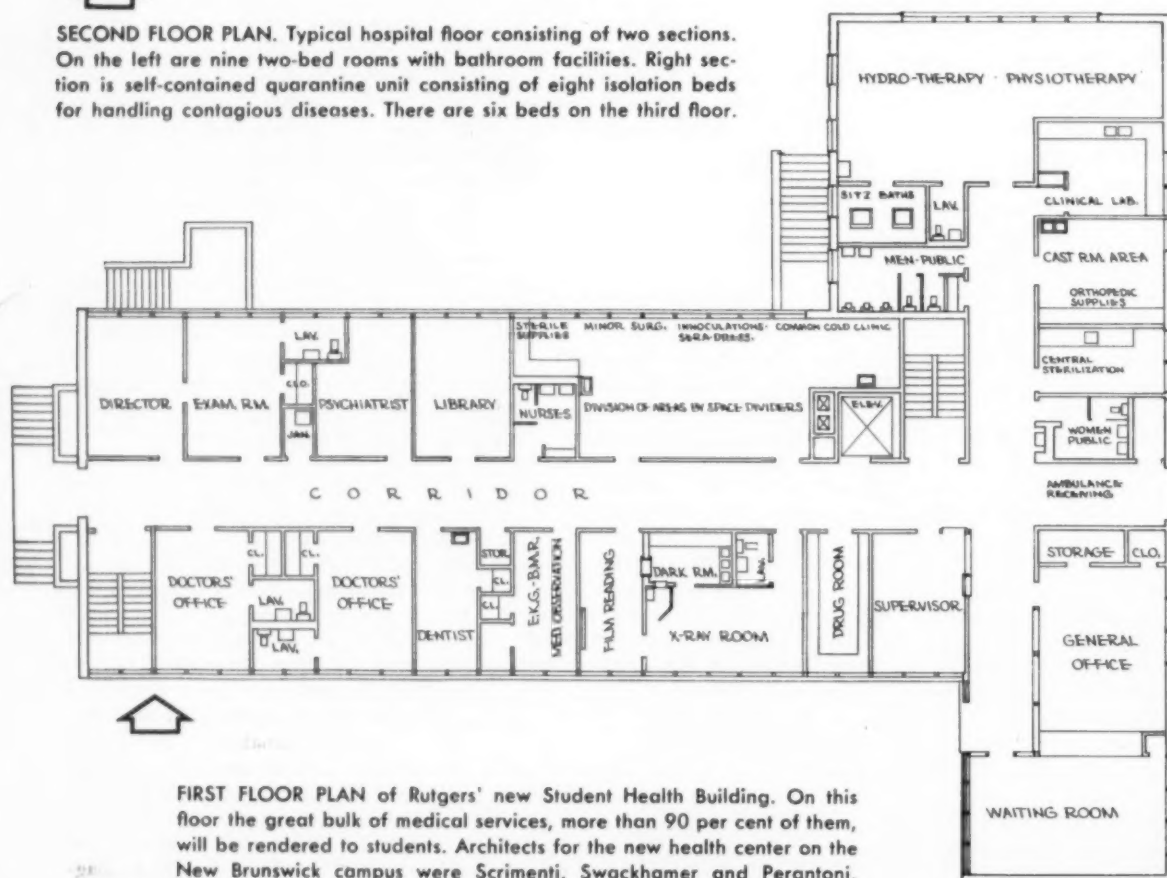
The second floor is a typical hospital floor consisting of two sections. The left section has nine two-bed rooms

with bathroom facilities for a total of 18 bed patients. The right section is the detached or self-contained quarantine unit consisting of eight isolation beds with individual bathrooms.

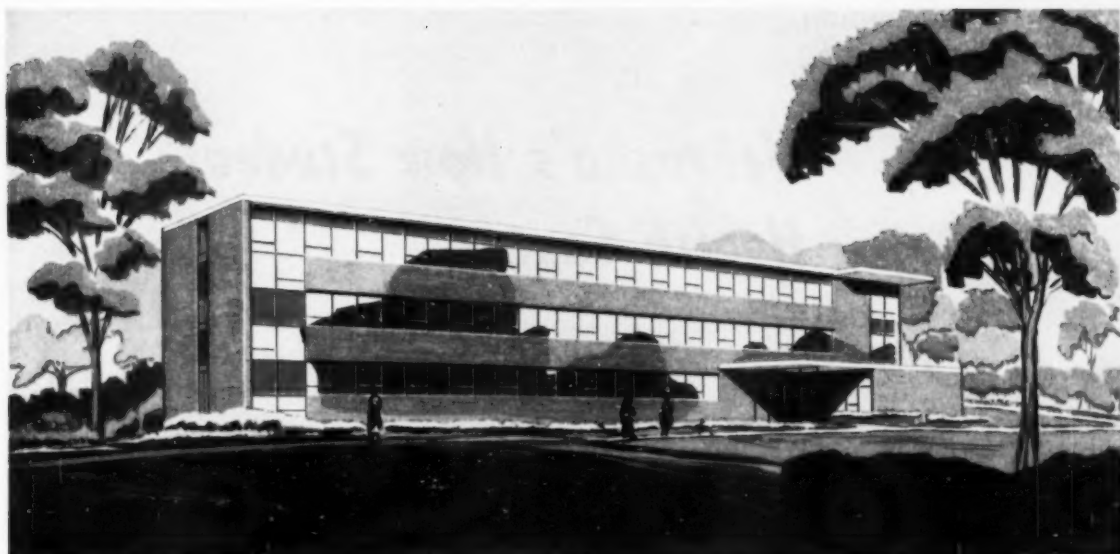
Conveniently situated on this floor are the office for the nurses in charge of the floor, space for medical, surgical and linen supplies, dining room



SECOND FLOOR PLAN. Typical hospital floor consisting of two sections. On the left are nine two-bed rooms with bathroom facilities. Right section is self-contained quarantine unit consisting of eight isolation beds for handling contagious diseases. There are six beds on the third floor.



FIRST FLOOR PLAN of Rutgers' new Student Health Building. On this floor the great bulk of medical services, more than 90 per cent of them, will be rendered to students. Architects for the new health center on the New Brunswick campus were Scrimenti, Swackhamer and Perantoni.



Exterior view of Rutgers' new Student Health Building, which opened in September.

for convalescent patients, serving kitchen, and a visitor's waiting room, equipped with public telephone booth.

Third Floor

The third floor consists of two independent wings or units. To the left of the elevator are the maids' room and a guest room with two beds and private lavatory. To the right are four additional hospital bedrooms, supplemented by the standard services required for bedside care: utility, linen, and drug rooms, bedpan sterilization unit, and office for the nurse in charge. The large, cheerful lounge and television room for convalescents at the right end of this floor can be converted, in a question of minutes, into a ward accommodating 12 extra beds, thus increasing the bed capacity of this project to a grand total of 44 beds.

The left half of this floor is completely independent. There are the night nurses' and housekeeper's quarters, living room and staff dining room for nurses on duty, linen and cedar closets, space for food supplies in bulk, pantry, kitchen and dish sterilization unit, maids' room for working clothes and equipment, and a janitor and trash room. A laundry chute connects all three floors of the building.

Basement

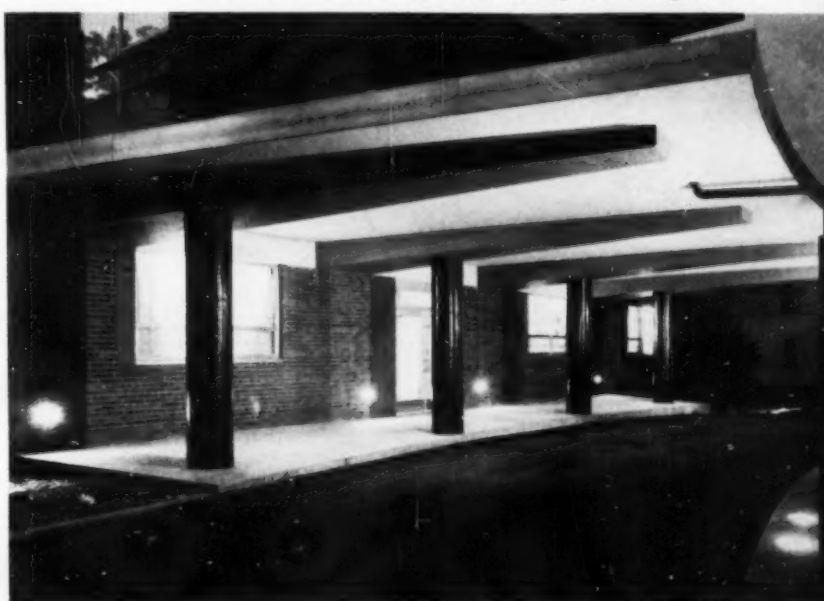
Besides taking full advantage of the customary storage facilities found in most basements, we expect to carry

out various important medical activities in the basement of our new health plant. Briefly, some of these are: physical examinations during Freshman Week, when 300 or 400 men are examined daily for three or four consecutive days; chest x-ray surveys in the hundreds per day; medical exhibits of films depicting personal or environmental hygiene; medical conferences or lectures supplemented by lantern slides, and physical examinations and

inoculations for the ground force and air force cadets. Throughout the planning of this project, the architectural and medical points of view were always carefully considered and properly balanced in an effort to obtain the optimum in functional capacities for this particular structure.

This modern health service building will definitely highlight the university's interest and concern for the health and welfare of the youth of the state. ■

Ambulance and taxicab entrance is well lighted for night use.



ALEX WEINSTEIN
Steele, Sandham & Weinstein Co.
Architects, Omaha

Nebraska's New Student Health Center

STUDENT health, like all fields of health, has become increasingly important with the basic advance of medical science. Realizing this importance, the University of Nebraska has planned for many years to construct a proper plant for this facility to supplant the temporary buildings occupied by the health center on the campus.

This new center was designed to fulfill the medical objectives of prevention, medical care, and rehabilitation for a student population of ap-

proximately 8000 on the Lincoln campus. Facilities eventually will take care of the 12,000 students expected in the near future. Complete facilities were necessary because the medical college is in Omaha, some 60 miles away.

In 1955 the university commissioned the architects, Steele, Sandham & Weinstein Co., Omaha, to start preliminary planning. Included in the planning were: Chancellor Clifford M. Hardin; C. A. Donaldson, director of purchases; Dr. Samuel Fuenning,

Nurses' station on second floor is located so that the nurse has complete visual control both left and right down the corridor.



Waiting room outside the laboratories has a specially designed blood letting table with a horizontal sliding arm rest.



medical director of the university; Tom S. Gable, head of the public health division, and Charles Fowler, director of buildings and grounds, as well as many department heads. Studies also included conferences with nurses, dietitians and custodians.

Financing was by a bond issue; operation is sustained by a fee of \$6.50 per semester, which entitles the student to the free services of the center. He may be charged a small amount for x-rays, expensive laboratory procedures, drugs or hospitalization.

Hospital facilities of the plant occupy the entire second floor. Offices, as well as outpatient facilities, are centralized on the first floor, and supplementary facilities and expansion areas are in the basement.

Immediately off of the main entrance is the large waiting room. Its brick flooring, brick walls, and bright colors are a cheerful contrast to the usual overly antiseptic hospital appearance. This area contains many amenities, such as a built-in drinking fountain, magazine racks, a private phone booth, separate alcoves, bulletin boards, and display cases.

Behind a counter, directly facing this area, is the reception and medical records section. This is the heart of the

entire plant and is connected to the rest of the building with such arteries as a pneumatic tube system, an annunciator system, a switchboard, automatic dictating equipment, and mechanical lifts to the records room below and the hospital nurses' station above. The main counter may be closed off from the waiting room by an attractive wood folding door.

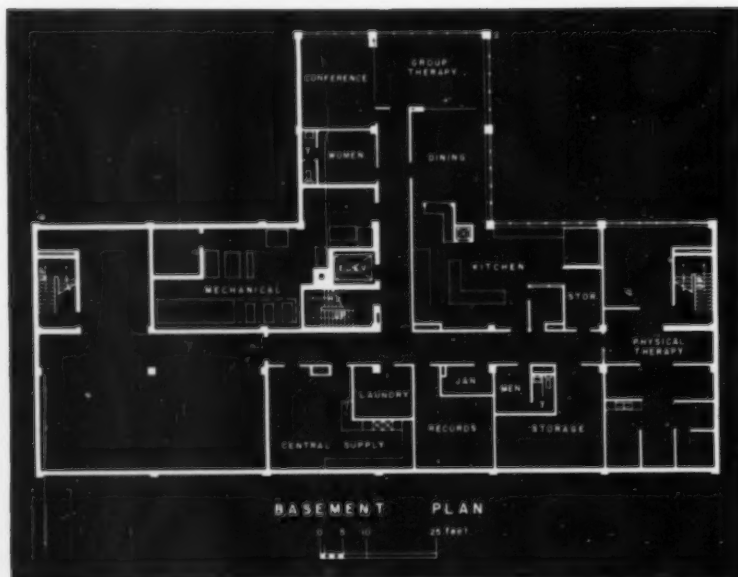
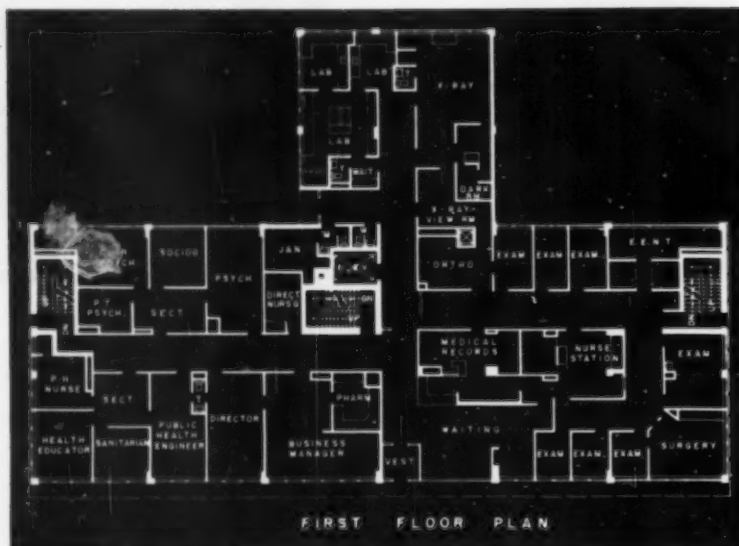
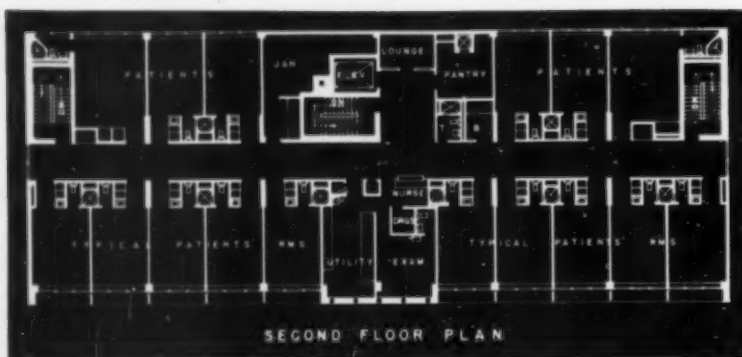
Adjacent to the medical records section is the main nurses' station for the outpatient operation. Accordingly, for sick call the student is ushered into the nurses' station for initial observation and testing. Its proximity to the medical records allows the fast interchange of necessary documents. The nurses' station contains many built-in features, as well as two supplementary private observation cubicles. Three walls of the station are enclosed in glass, so as to allow complete control of the surrounding corridor; examination rooms; eye, ear, nose and throat suite, and minor surgery room.

All examination rooms have natural light, built-in lavatories, x-ray view boxes, and work counter. Many of them have portions that may be closed off with a folding wood door, so that the patient may be utilizing a portion of the room for dressing while the doctor is at the desk writing up the report.

The E.E.N.T. room has two chairs for ear, nose and throat treatment, and a separate alcove for eye testing. One large examining area divided by a folding wood door is utilized for E.K.G. Minor surgery is done in the corner suite. This room has ceramic tile walls and conductive linoleum floors.

Adjacent to one examination room is the orthopedic room, with quarry tile floors, ceramic tile walls, and built-in sink and cabinet. Also provided is a separate crutch closet. For immediate use with the orthopedic room is the x-ray suite, which includes an x-ray room and a photo-roentgen unit. The x-ray room is served with such adjacent areas as two dressing alcoves, private toilet, barium sink, and a darkroom with a through-the-wall developing tank. Additional facilities provided are an x-ray view room for records, view boxes, and so forth.

Also in this rear wing of the building, which has a separate emergency ambulance entrance, are the laboratories. The general laboratory has many built-in cabinets with chemical resistant tops. It has a fume hood, a refrigerator, and soapstone sink. The waiting room outside the laboratory has a specially designed blood letting



Floor plans of University of Nebraska's new health center.

table. This table is provided with a horizontal sliding arm rest for the patient's arm; it also serves as a means of preventing the falling of a patient who might fall forward upon fainting. Adjacent to this area is a small specimen room toilet. It is connected with the general laboratory with a specially detailed stainless steel revolving specimen window.

Immediately adjacent to the general laboratory are the special laboratory and the bacteriological laboratory. These rooms contain counters, stainless steel sinks, drying ovens, autoclaves, refrigerators and centrifuges. Adjacent to the ambulance entrance are two small lavatories for the staff, as well as a janitor's area.

This core of the building also contains vertical circulation items, such as the main stair well, a hydraulic elevator, a dumb-waiter, and a laundry chute. Stair wells have been planned with maintenance in mind: quarry tile floors and brick walls. They are naturally lighted by skylights. The stainless steel elevator and dumb-waiter are automatically operated.

The south wing of the main floor contains the basic offices for the student health operation. The business office is connected to the director's office, as well as to the dispensing pharmacy. The pharmacy contains many built-in cabinets, narcotics safe, revolving corner shelves, and built-in sinks. Students are served through a dispensing window to the main corridor.

The public health suite contains five rooms for the public health engineer, sanitarian, health educator, public health nurse, and secretary; private toilets for the engineer and the director, and an audio room for testing hearing. The audio room is isolated from the adjacent structure by thick walls and is lined with asbestos board, backed up by an absorbent acoustic material.

Across the hall is the psychologist suite, which includes five rooms for the psychologist, the P.T. psychologist, the sociologist, and a secretary.

On the hospital floor are 16 two-bed rooms, designed so that any room can be closed off in isolation. The nurses' station is located so that the nurse has complete visual control both left and right down the corridor. In this alcove are a laboratory, bulletin board, and a specially designed desk. To the rear

is a small drug room and a large examination room. This examination room has a built-in lavatory, a private toilet, and an x-ray view box.

Also adjacent to the nurses' station is a fully equipped utility room which has a quarry tile floor and ceramic tile walls.

The patient rooms are gracious, livable and gay. All have ample amounts of natural light, individually controlled heating and air conditioning units, built-in closets and drawers, and stainless steel lavatories. Curtain tracks are recessed, as are the stainless steel wall shelves near the door for holding isolation sterilizing pans. Each room has a toilet, and most of the patients share a built-in shower with the occupants of the adjacent room. Some rooms have private facilities.

The east stair well, utilized as a night entrance for the students, is so controlled by doors and electrical locks that the night nurse has complete control over any intruders.

Call systems and signal systems result in a maximum amount of nursing

care with a minimum amount of walking by the staff.

The land contouring about the building was planned so that the rooms on the rear facade of the basement have natural light. A large kitchen is included in this area. It contains many supplementary facilities, including a large walk-in refrigerator, a separate kitchen, a storage room, a dietitian's room, and much built-in stainless steel equipment. It directly serves the outpatient dining room, which is set up to serve students with special dietary problems, such as diabetics. This dining room is one of the three adjacent areas designated for conferences, group therapy, and dining; however, these areas are separated by folding doors that can be pocketed, resulting in one large flexible area. Walls are of hardwood.

At the east end of the basement is the large physical therapy department, which gives care to acute injuries. It has quarry tile floors and ceramic tile walls, and contains many cubicles with hydrotherapy baths. Also in the basement are the staff's

locker rooms and toilets, permanent records room, and general storage rooms, as well as the laundry and the general supply room.

The mechanical room contains a large transformer vault, the air conditioning chiller, pumps, incinerator and much other equipment. Steam is brought in by tunnel from the main college steam plant.

The remainder of the basement is devoted to future expansion areas.

The building is basically integrated into the design of the campus by the use of red brick and limestone trim. The structure throughout is steel frame, completely fireproofed, with acoustic plaster ceilings. Floors except in special areas are asphalt tile.

Cost of the building, which contains 26,170 square feet, was \$513,503, which includes kitchen equipment and all other built-in equipment. The cost per square foot was \$19.62.

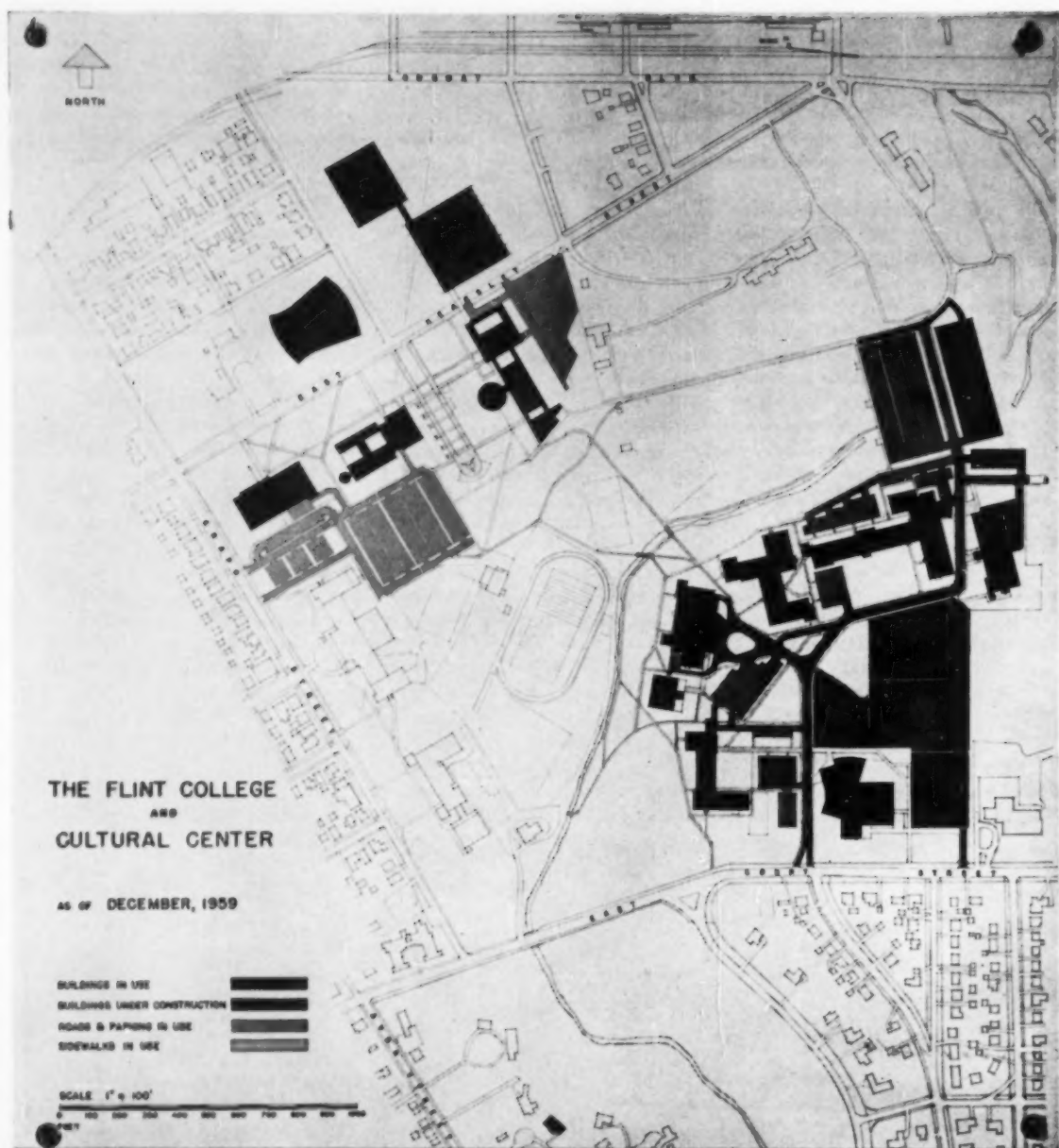
With the completion of this new center, the entire university community has the appropriate technical facilities and esthetic environment for its health needs. ■

Left: Nurses' station on first floor has three walls of glass, allowing complete control of surrounding corridor,



examination rooms, and minor surgery room. Shown below is section of the x-ray suite.





Citizens of Flint, Mich., wanted to make their town a model home for all, a vital and stimulating place to live in. The unusual story of Flint's educational, cultural and civic renaissance will be told in three successive articles: site planning for the community college, the cultural center, and urban development

SITE PLANNING

for Community College and Cultural Center

WELLS BENNETT
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Dean, Flint Community Junior College, Flint, Mich.

NORMALLY a college grows slowly. After a modest beginning with one or two buildings on a small acreage additions appear from time to time, reflecting periods of national peace and prosperity. Since World War II campus growth has quickened for hundreds of institutions of higher learning. For Flint Community Junior College this expansion has been explosive in speed and intensity.

Began in 1951

The process began in 1951 when William S. Ballenger Sr. bequeathed to the college \$200,000 for a field house, along with a \$5 million endowment for the educational program. Charles S. Mott, Flint's "first citizen," provided lands and funds amounting in value to more than \$4 million. The committee of sponsors, a group of public spirited individuals and organizations, came forward with several million dollars for land and buildings. Additional funds in considerable amount were provided by the Flint board of education from tax sources.

The result of this remarkable cooperative effort, under the direction of the Flint board of education, is a physical plant valued at more than \$12 million, which provides outstanding facilities and equipment for higher education in the area. The breadth of the concept is indicated by its title, the Flint Community College and Cultural Center.

Flint Community Junior College was established in 1923. Following a time-honored pattern among junior colleges, it was given space in a high school building, and later was assigned to quarters in structures earlier

acquired by the board of education. The college originally offered a liberal arts two-year curriculum, and in the middle Thirties added a series of vocational terminal courses.

In 1951 Charles S. Mott provided a 40 acre campus for the college on partly level and partly rolling land divided by a small creek. The first buildings erected on this site were a field house, a general classroom building, and a science center. These structures, built in 1954 and 1955, were situated south of the creek with campus parking adjacent to the street, which marked the southern limit of the site.

The three buildings were of conventional design: reinforced concrete framed, with brick and cinder block facings and glass block lighting. All were designed with particular concern for economies in construction costs and maintenance in operation. The plant provided 204,801 square feet of space designed to house a complete curriculum and necessary auxiliary services for 2000 students.

A fourth structure, the Mott Memorial Building, was constructed for a senior college unit in 1956; it conformed with the architectural style of the existing junior college buildings. This south group, in full operation in the academic year 1957-58, was, from the first, serving as a functional educational plant under the administration of the dean of the junior college. It was convenient and efficient in operation.

The northern portion of the campus was conceived as a unit almost as complete in itself as is the southern group. Here there is a striking difference in architectural character and in the functions of the buildings them-

selves, which are obviously designed to accommodate both collegiate and cultural interests, the latter for the public almost more than for the college student.

Such aggregations of building types have, of course, appeared on many campuses, but rarely so completely set apart as were these groups. On the south campus only the natatorium, completed in 1958, is something of a community facility. Since both campus areas were placed under the administrative control of the junior college in 1957, it became necessary to integrate them as one physical plant functioning so as effectively to serve both college and community needs.

Consultant Employed

In October 1957 the Flint board of education employed a consultant to develop an over-all integrated site plan for the campus. He was commissioned to prepare a preliminary site scheme that would serve as a directive for the solution of immediate problems in campus siting and circulation, and to proceed toward a total plan looking forward to campus development for at least the next 10 years.

The consultant began his work by surveying the central area, existing structures, current uses of buildings, and projected student population and programs. He obtained copies of existing maps of the campus and adjacent areas. He procured from the city engineer, the city planning commission, and officials concerned with highways, street and traffic problems, needed data for the planning process. He gathered topographical and use maps of the campus and adjoining



The Harlow H. Curtice Building, costing \$1,080,000, is in the foreground. The Charles Stewart Mott Center of Applied Arts and Sciences, constructed with a gift of \$1 million from the Mott Foundation, is in the background.

areas, and surveyed existing private properties and parks in the area as a basis for the determination of directions in which the campus might properly expand. He consulted with the members of the board of education and the administrative officers of the junior college regarding current educational policies and objectives of the college.

In addition, the consultant studied the economic value of adjacent properties, their sociological status, the patterns of related streets, and the traffic conditions involved. These studies were carried on with an eye

to present and future factors of environment as they may affect present pressures and the future expansion of the college.

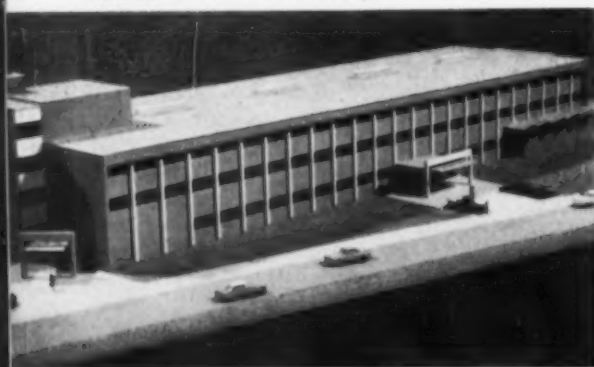
The development of the site plan grew out of the team action of three individuals: the college administrator, the site consultant, and the business manager of the board of education.

The college administrator supplied the needed information relative to the educational objectives of the board of education and the junior college. He outlined the philosophy of education of the institution as he had seen it develop over the recent formative

years, indicating the objectives toward which the school would move in the years ahead. He also served a function in integrating educational concepts and needs to the board of education, substantiating the successive studies made by the consultant for the location and orientation of buildings, the determination of building sizes to meet specified uses, and the location of drives, sidewalks and parking and service areas.

Further, the college administrator helped the consultant define specific problems relating to the site. Among the problems encountered were those

Michael A. Gorman Building



Library as seen from the northeast



An aerial photograph of the University of Illinois at Chicago campus. The image shows a large, modern building complex with a central courtyard. The building has a long, rectangular shape with a series of vertical lines, possibly windows or structural elements, running along its length. The courtyard is a large, open space with some trees and a few small structures. The surrounding area includes parking lots with several cars and some landscaping with bushes and trees. The overall scene is captured from a high angle, providing a comprehensive view of the campus layout.

Model showing library and other buildings on southeast section of campus. White buildings exist; gray ones are proposed. Planetarium in upper left-hand corner.



of student travel patterns in going from class to class and the volume of student traffic by hours and in relation to specific concentrations of instructional or laboratory.

The consultant acted as the coordinator of the items in the program of needs in order to bring into being a plan that would fulfill the board objective of the board of education, the educational objectives of the college administrator, and the physical facilities for which the business manager is responsible. The end product, which is the site plan illustrated on page 38, brings together the two relatively isolated site groups and articulates their various uses in a single integrated campus.

The business manager played an important role on the planning team. He assisted the consultant in obtaining the necessary data, costs, estimates and maps from various sources. He worked closely with the consultant on the analysis and design of building locations, and facilities for pedestrian and automobile traffic

across the campus, from building to building, and from group to group.

The campus plan evolved from the nucleus of three buildings containing 200,000 square feet designed to serve 2000 junior college students. Buildings constructed or acquired between 1955 and 1958 provided an additional 155,000 square feet, and, during the same period, 24 acres of land were added to the campus. Future plans include the acquisition of other land and the construction of approximately 600,000 square feet of building area to serve 10,000 students by 1970. The project includes provisions for further expansion after 1970.

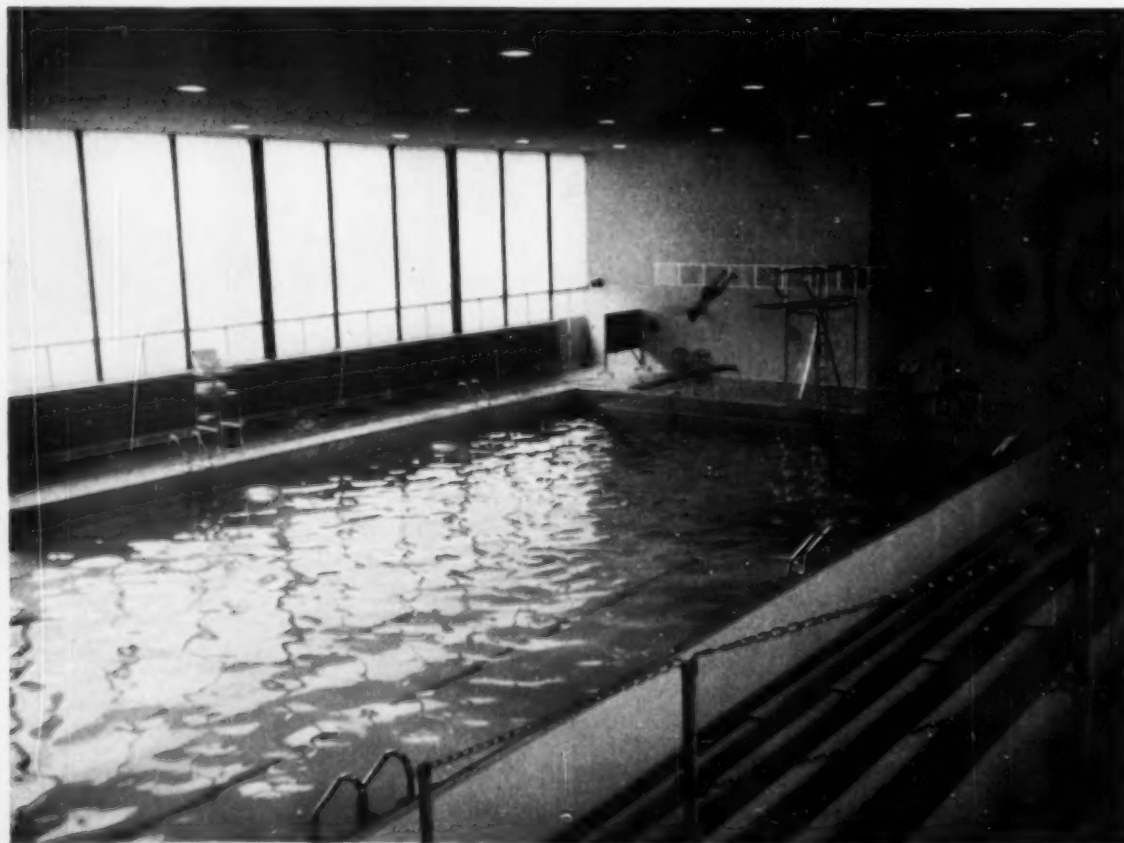
The site plan of the Flint Community College and Cultural Center illustrates certain principles well known to architects, policy boards, and college administrators.

All recommendations relative to the building program must be channeled through the chief administrative officer. He is qualified to relate the educational requirements of the institution to the site and building

plans and determine whether the facilities will undergird the educational program. He is also responsible for the task of coordinating the efforts and ideas of representative community groups and advisory committees, the college faculty, and the policy board. This is done in cooperation with the business manager and architectural consultant, who sift proposals with an eye to initial and maintenance costs and principles of site development and building planning.

The plan, as finally evolved, should account for both immediate and long-range objectives. The plant may be small initially, but it should be planned so that future zoning of educational programs and courses is possible as expansion takes place. Such planning will be "open-end" and should eliminate many problems otherwise likely to occur as the physical plant increases in size. The inclusive site plan proves graphically that long-range planning is essential to systematic and esthetically acceptable development of any acreage area. ■

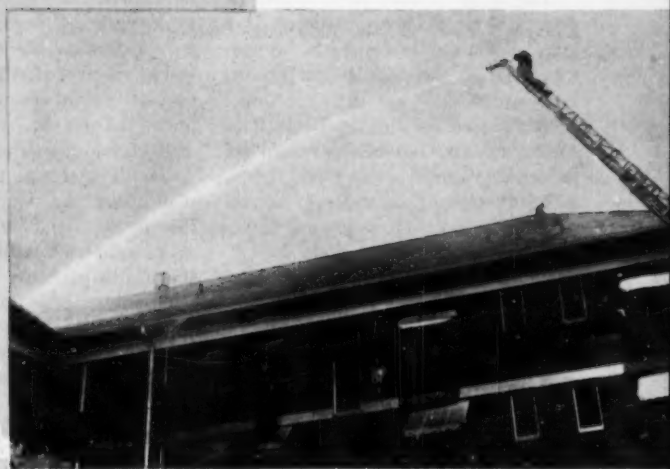
Cady B. Durham Natatorium, with standard Olympic size swimming pool, has bleachers for 420 spectators.



Essentials of a Safety Program

JOHN MORRIS

Safety Coordinator
University of Illinois, Urbana-Champaign



THE origin, aims and methods of safety programs in colleges and universities are much the same as they have always been in industry. Safety programs have their beginnings in the recognition by managers and administrators that safety is an essential part of good management and good administration. In the college setting, the program consists of whatever we do consciously to create a safer campus environment, to make work procedures safer, to make laboratories safer for students and research workers, and, to instill in the minds of people attitudes conducive to safety. There are other branches of the program, but these are some of the main lines of activity.

Areas for development of safety on the campus are indicated by our own experience and that of others with accidents, injuries, death and disaster. For example, consider student residence fire safety, a problem thrown into prominence by night fires which lately have killed eight in New York, one in Mississippi, two in Washington,

D.C., and have destroyed living facilities costing several million dollars.

Other phases of a safety program are suggested by a scaffold falling in a college power plant, dropping a workman to his death; or an ice sculpture created for a winter carnival, falling and crushing a small child; or a fraternity initiate, taken for a ride on a winter night, falling through thin ice and drowning. Consider a laboratory worker, bitten by a monkey and dying within four hours; or another, pipetting by mouth a deadly virus and contracting a fatal illness.

To the extent that these deaths and injuries were preventable, and all these certainly were, they indicate the need for the provision of safe facilities and the development of safe working procedures and attitudes of mind.

Safety is the science of conservation of people, property and money, stated always in that order. We effect this conservation through the application of control measures to known hazards. The safety engineer or safety specialist makes his life work the business of knowing these hazards and the means of controlling them. There is not one instance in the foregoing list

of casualties that could not have been not only predicted but prevented by a professional safety person.

Knowledge of Loss Figures

The first basic essential of a safety program probably is this: that the administration must have fairly accurate knowledge of the facts concerning losses of personnel, man-hours and money through work injuries, fires and accidental injury to students and the general public. Losses such as these represent a direct overhead cost of the educational process which can become burdensome and yet which is subject to intelligent control through a planned program of safety.

We should try to assess the *total costs* of fires and accidents in determining the need of control activities. Costs of loss of a building through fire, for example, actually include not only the excess of replacement cost over insurance settlement, but also uninsured losses resulting from loss of use of the building, loss of irreplaceable records, research contracts forfeited, and so on. Work injury losses should include not only workmen's compen-

From a paper presented at the Central Association of College and University Business Officers, Purdue University, 1959.

sation payment, medical costs, and disability awards payments, but at least some of the indirect or hidden costs of these incidents.

The 4 to 1 ratio popularized by Heinrich¹ is no longer accepted as a rule of thumb, but most of us recognize that the hidden or indirect costs are seldom less than the direct or recognized costs of accidents. This factor assumes significance when we reflect that direct costs of \$50,000 to \$70,000 are common in larger universities. One reported paying out \$250,000 last year in direct costs.

Administration Support

The second essential point is the development of a conviction on the part of the administration, based on knowledge of loss figures and on other factors, that a safety program is entirely necessary and important. Such a program operates always in the direction of saving life, manpower, money and property. But it also requires money to be spent, changes to be made, and the *status quo* to be disturbed occasionally. Therefore, unless the program has the full interest of top administration from the beginning, it is not likely to prosper.

A statement of safety policy is a useful device for making known the interest of the administration in the safety effort. This is not vital, but it helps. The telephone company has an excellent motto that also serves as a statement of company policy: "No job is so important and no service so urgent that we cannot take time to perform our work safely."

Assignment of Responsibility

A third essential point is the direct charge of responsibility to an individual for planning, directing or coordinating safety activities. This person should be one qualified by training and experience, and adaptable to the nature of the university situation.

Where this safety person should be placed on the organization chart is still a matter of open discussion, and there are several workable possibilities. He should be placed, of course, at such level and in such position that he can work without prejudice in any area of the institution. He should have direct or near-direct communication with top-level administrators.

Minnesota has placed its safety supervisor in the division of environmental health in the university health service. This is a good working arrangement at Minnesota, but the health service there is an extraordinary institution, and what works there would not necessarily have similar success at other universities. Penn State has set up an environmental engineering group in its security division. It is similar to the Minnesota plan in that the safety engineer works directly with the public health engineer, industrial health engineer, and the health physicist in a program of environmental health and safety. No consideration was given to placing this well conceived program in the health service.

Safety Committees

Safety has been responsible for the creation of a great many committees. Some of these originate because there is no full-time person appointed to work in safety, so a committee undertakes details that such a person would handle. High-level committees in some colleges carry on such work, and do good service. However, the failings of committees generally threaten the success of any program based on a committee structure alone. A committee can serve as a token of recognition of responsibilities in safety, but may go to sleep on important problems through lack of aggressive leadership or inability to get things done.

Finally, any committee in safety that assumes functions that properly belong with line supervision is working contrary to good management practice. Safety is a management function, and no committee activity should be permitted to undercut or water down the supervisor's authority and responsibility in safety.

The faculty advisory committee to develop university safety policy may serve a useful function, and departmental safety committees made up of faculty persons meeting to set up departmental safety policy have been successful. Russell DeReamer in his "Modern Safety Practices"² refers to the safety committee as the "sacred idol" of the safety movement, and suggests replacing it with personalized training methods that tend to strengthen the line responsibility.

Other Activities

Some essential activities drawn from industrial safety patterns developed over the last 50 years that should be made a part of university safety programs are these:

- Personalized safety training³; job study; establishment of safe procedures.
- Purchasing for safety — safety consideration in buying of new tools, supplies, and so forth.
- Safety in new building construction, commencing with planning stages and including review by the safety engineer of plans and specifications.
- Adherence to standards, as developed by American Standards Association and other authorities, including state and local codes.
- A continuing program of maintenance of plant with attention to improvement of older buildings to meet minimum fire safety standards.
- Integration of safety into instruction, not through the setting up of new courses, but through attention to opportunities in existing courses, particularly those with laboratory and shop exposures.

Student Participation

Many colleges have been able to encourage participation by students in safety program activities. Emergency routines, including fire exit drills, provide the best single opportunity for this. And there are other opportunities in connection with student carnivals, social functions, recreational activities, and off-campus excursions. Just the transportation hazard connected with field trips for study or recreation is worth careful consideration. Other areas that suggest room for student development of safety standards include mountain climbing, white water canoeing, spelunking and sky diving.

What can we expect to achieve in the general development of college safety programs? First comes the saving of an appreciable number of lives over a period of years, the lives of students, faculty and staff; second, the saving of millions of dollars from predictable losses subject to control measures; third, steady progress toward fulfillment of whatever responsibilities college administrators have for providing a safe environment for education, research and service. ■

¹Heinrich, H. W.: Industrial Accident Prevention, 3d Ed. New York: McGraw-Hill, 1950.

²De Reamer, Russell: Modern Safety Practices. New York: John Wiley and Sons, 1958.

Upgrading the Purchasing Office

E. J. BOFFERDING

Partner, Cresap, McCormick and Paget, Management Consultants

AS MANAGEMENT consultants, we usually are called into a college or a university to look at several or all of its administrative and management services. Many of our assignments have thus involved evaluation of the purchasing activity.

In reviewing the purchasing function, we study at least 10 factors:

1. *Policies that guide procurement.* In any activity, it is important to understand primary objectives and policies. In purchasing this seems basic, since the policies are controlling on the procurement staff as well as upon all other components of the organization.

Purchasing policies concern the authority to purchase, the approval requirements involved, the process of vendor selection, bidding requirements, local purchase requirements, and the basic policy of the procurement office regarding the markup of its cost in order to cover overhead.

The policies also cover the even more basic matters: the quality level of purchases to be observed, responsibilities for such special items as scientific instruments and equipment and construction materials, and the relationships between central purchasing and individual departments and agencies regarding specialized and technical purchases.

2. *Organizational setting.* A second factor is organization. While structure is not an end in itself, poor organization may seriously handicap those responsible for the success of the undertaking. Clear organizational lines are needed to define the function and authority of the various units, the relationship of the purchasing agent to other departments, and the responsibility for accomplishing objectives.

3. *Standardization of items.* The authority of the purchasing office to standardize items for procurement and the extent to which standardization is carried out are basic components of quantity purchasing. Standardization not only affects quantity buying but, in addition, the extent to which departmental needs can be met by requisition rather than the costly purchase process. Lack of standardization is the major reason for the small-quantity purchasing that so frequently contributes to purchase office expense and high prices paid.

4. *Operating practices.* In our evaluation, we review all the operating practices of the purchasing activity in detail. These include determination of need, preparation of the requisition, processing of the requisition, selection of vendor, issuance of the purchase order, follow-up and expediting to obtain purchased materials, receiving and inspection activities, control of inventory in stock, invoice approval, and closing the transaction. We examine each phase of the process to determine who performs it and the method of performance.

5. *Use of written procedures.* When written procedures exist, we examine them in detail and make an inspection to see if operating practices follow the written procedures. We also check to see whether written procedures are translated into operating statements for the use of all other departments, so that they may comply easily with the purchase requirements.

6. *Operating ratios.* We calculate all possible indicators of performance effectiveness in order to identify areas requiring more intensive study, on the basis of comparison with other similar sized operations.

Typical performance indicators include cost per order issued, administrative cost for purchasing *versus*

total dollar volume of purchases, elapsed time from the purchase requisition to delivery, number of open orders in the receiving file, price comparisons, amount of inventory carried, number of receiving points, orders issued per employee in the purchasing office, number of purchase discounts taken and lost, number of confirming purchase orders, reaction of vendors, size of orders issued by requisitioning authority and commodity purchased, number of approval authorities, number of rush requisitions, forecast of purchases to take advantage of market trends, use of an abstract of telephone bids, use of vendor qualification files, and use of quantity discount schedules.

None of the foregoing operating ratios or measures of effectiveness is definitive in itself, but several are often interrelated or point to problem areas for further investigation.

7. *Service and benefit from centralized purchasing.* We review a sampling of customers of the purchasing office to determine their service requirements, the extent to which the purchasing office is able to meet their requirements, and their opinions on central purchasing. While we are used to complaints against any service activity, this analysis often turns up important points. Oftentimes, factors outside the control of the purchasing office prevent it from serving its customers adequately.

On occasion, we find rigidities in purchase practices that are of little aid in effective central control yet they irritate department heads to such an extent that the value of the entire process is questioned. Another good reason for soliciting customer opinion is that if the purchase process is sound and yet the customers do not believe it to be so, the difficulty obviously lies in the public relations of the purchas-

From a paper presented at the annual convention of the National Association of Educational Buyers, Miami Beach, 1959.

Let's take a close look at some outstanding deficiencies

ing office. All too frequently, the customers of a centralized activity have not been educated to the benefits they actually derive.

8. *Vendor selection.* We examine the entire process of vendor selection in great detail, since this is the heart of the procurement cycle. If the purchasing activity does not make a significant contribution in this area, there is little justification for its existence.

9. *Relationship to the budget.* Since the purchase activity of a college or university is normally second only to salaries and wages in amount of funds handled, the relationship of the purchase process to the budget is of extreme importance. We examine the use of the budget as a control for purchase expenditures, as well as the entire process of determination of need. Unless the purchase office is contributing significantly in the determination of need and the amounts to be budgeted for major items, there is a lack of coordination of effort in expenditure control.

10. *Price comparisons.* As a final point of fact-finding, we obtain a sample of prices for representative items and compare them with available market quotations, as well as with prices paid by similar organizations on the same date of purchase. When these data are not already available within the purchase office, it is important to procure them if any valid appraisal of the net results of the purchase process is to be made.

Representative Findings

I now turn to what we find when we take this critical look at the purchasing process in colleges and universities. I shall dwell only on those areas in which improvement is possible. What I say should not be taken as criticism, but as a possible starting point for corrective action. Fortunately, not all of these difficulties would commonly be found in any one purchasing agency.

The commonest deficiencies, in the approximate order of their significance, are listed:

1. *Lack of clear objectives and controlling policies.* It is a rare purchasing office that has clearly defined its objectives and has submitted for approval of the administration and trustees a set of basic policies. Without clear objectives, there is no means of evaluating how well the function is being carried out; without clear policy directives, there is frequently great uncertainty regarding the authority and responsibility of the centralized purchasing office.

We believe these to be basic elements of any well managed purchasing department and are continually being surprised to find how few institutions have completed this fundamental step of good management.

Lacking clearly set policies and objectives, the purchasing agent operates at his own peril. He is left in the untenable position of having his basic judgments subject to criticism on any action and of having his own policies in question rather than the policies of the governing board.

2. *Lack of organizational clarity.* Perhaps the second commonest basic deficiency is a lack of organizational clarity, not only within the purchasing office itself but in its relationships to all the offices with which it deals. Such a lack of clarity results in overlapping jurisdictions, absence of coordination, duplication of effort, and general misunderstanding.

A clear organizational structure, which defines the function and authority of the various units within the purchasing activity, the relationship of the purchasing agent to the other departments, and the responsibility for accomplishing the objectives of the purchasing activity, is essential for effective operation. Organizational assignments must define the duties of all persons responsible for any part of the purchase activity, including those in decentralized locations, such as for the purchase of scientific equipment, books and food.

3. *Lack of standardization.* Standardization of items is a basic factor that permits quantity purchasing.

Lack of standardization results either in high inventories in stock or in the purchase of a large number of small items, frequent purchasing instead of requisitioning from stock, and often considerable criticism of the purchasing office since the purchase of small-quantity lots plus the central purchasing markup brings the price up to what the using department itself could obtain.

Obviously, the purchasing agent cannot standardize items to be purchased unless the college has established a basic policy concerning quantity buying and given direct authorization to the purchasing agent to standardize in order to reach this end. With such policy backing, a number of purchasing agents have demonstrated the considerable savings to be attained through quantity purchasing of standard items of supplies and equipment, and the concomitant requisitioning of these items from stock.

4. *Purchasing office public relations.* A few areas in college administration are always roundly damned. Not many people love the budget officer. The food service is rarely subject to praise. The buildings and grounds departments receive few compliments on their work, and the central purchasing office hears many more grumbles than cheers. This seems especially regrettable, since a large part of the criticism of the purchasing process appears to be the result of the poor public relations efforts of the purchasing office.

In any activity with a large volume, it is inevitable that mistakes will occur or that delays will be encountered, especially when part of the service comes from vendors whose activities cannot be completely controlled. Nevertheless, there is a rather general failure on the part of purchasing officers to explain to their clientele the services they offer, the improved prices that frequently stem from these services, and the resultant savings to the institution as a whole.

Aside from failing to see that its services are generally understood, the

Here are five ways to improve purchasing performance

purchasing department may damage its public relations in two specific ways.

First, some purchasing services tend to set up an iron-clad process that is followed rigidly, regardless of circumstances. The failure to create proper emergency processes or the insistence on troublesome and inconsequential steps in the normal procedure often results in irritations completely out of proportion to the value of the items or the control feature involved.

The second damaging factor in public relations is the all too frequent attempt of the central purchasing office to recover all its costs through markup. The result is that the using department itself could buy the item just as cheaply, if not more so. This policy is poor, for two reasons. Not only does it discredit the purchasing department and damage its relationships, but it tends to dilute the purchasing department's own incentive. Whenever any activity can recover all of its costs from its customers, regardless of amount, little incentive is left to hold administrative costs to a minimum. Therefore we believe that it is a good practice for a purchasing office to recover only a part of its costs from its clientele and to stand ready to justify the remaining costs through the normal budget review process.

5. *Operating practices.* Several operating practices exist in which improvement in procurement seems desirable and possible. The first is determination of need. The most effective and efficient purchasing process is of less than maximum usefulness if it fails to aid as a budget tool. Purchasing officers seem to be occupationally timid about even suggesting that equipment might be shared, or in seeking policy determinations regarding priorities in the expenditure of the limited funds of the institution for various types of equipment and supplies. Conversely, the purchasing process can make one of its most significant contributions by assisting the organization in an orderly and effective determination of priority of needs.

Another important factor is the inability of the purchasing office to analyze itself and keep its procedures up to date as the volume of work grows. Frequently we find a \$50,000 set of purchasing procedures trying to serve a \$5 million purchase activity. Inadequate and outdated procedures result in overworked staff, frustration with the purchase process, dissatisfaction with results obtained, and a cost of procurement out of proportion to the value received.

Other operating practices that need improvement include trying to operate a complicated process without written procedures, too many small orders, a disproportionate cost of issuing purchase orders to the value of the item, poor follow-up on open orders, poor receiving procedures, inadequate storeroom records without reorder points, and frequently a volume of "rush" requisitions exceeding the normal number of emergencies to be expected.

Suggestions for Improvement

Meeting with varying administrative acceptance are the major university staff services of accounting, personnel administration, budgeting, purchasing, financial control, planning, and organization and methods analysis. Accounting and financial control activities are universally employed. While the functions of budgeting and planning may be poorly or well performed, they are widely accepted in principle. Purchasing, personnel administration, and organization and methods services, however, get the least acceptance, both in actual practice and as recognized and needed management services. If this is generally true, and certainly our experiences substantiate it, what should be done to improve the situation? I have a number of suggestions.

The procurement activity is an important and vital function in effective administration. Completely accepted in commerce and industry, it rarely lacks the status it needs for effective operation. With college and university

administration now in the ranks of big business, the function needs upgrading and stature.

1. It is most important that the ground rules are well known throughout the organization. This means clear objectives and operating policies that guide the procurement process and set the framework within which it operates. Since purchasing is a control activity, it must have backing from top management; otherwise its efforts are only tolerated or thought of as interference.

2. It seems important to establish a level of service that the purchasing office can live up to in all its activities; this is the only way to gain acceptance.

3. It is a mistake to try to reclaim all costs from the customers. This not only discredits the activity through the occasional unfortunate happenstance, but it also takes away the normal incentive that everyone should have to justify his operating needs at each budget review.

4. It also is important to use all known tools for analyzing and measuring the effectiveness of the activity. The customers should be informed not only of the benefits derived from the purchasing office but also of the operating results as determined by the operating ratios and measures of performance available.

5. The National Association of Educational Buyers should develop criteria of purchasing performance that will aid in professionalizing the service and in giving it the stature it deserves and needs. The association should be able to assist in the following ways:

It can develop self-study guides. It can promote intensive studies in colleges of various sizes in order to develop rough standards of performance to aid in budgeting purchasing activities as well as in developing criteria for measuring effective performance. Growing out of these studies, it can develop some uniform practices. And, with rising prices and mounting pressures for college funds, it can consider stretching the college dollar through cooperative buying. ■

Auxiliary Enterprises Can Pay Their Way

GRADY JENSEN

Business Manager, University Heights Campus, New York University

UNTIL a little more than three years ago the concept of auxiliary enterprises was virtually nonexistent at New York University. Although the university had had dormitories, cafeterias and bookstores for a number of years, there was no attempt to cost-account for these activities on true and realistic bases. The informal and decentralized organization of these auxiliary activities reflected the methods of operation and cost keeping.

In the case of the then five bookstores, three were under one manager but were accounted for as a single operating entity rather than as separate units. A fourth store was under the jurisdiction of the purchasing department, and the fifth was operated independently by the medical center. Residence halls came under the jurisdiction of the plant department and were charged only with direct operating costs, such as salaries and supplies, the maintenance and utility expenses being absorbed in the university's plant operation budget.

Outside Catering Firm

Five cafeteria and snack bar units were operated by an outside catering organization, which rendered adequate monthly operating statements as far as they went, but the units were not charged for a number of university incurred expenses related to them. Medical center feeding operations were managed separately at that location.

The print shop, an internal printing and duplicating service unit, had changed hands, organizationally, so many times that it was difficult to determine exactly how it did operate, from an accounting standpoint.

Over the last three and a half years significant changes have been made in the auxiliary enterprises areas. In respect to organization, there are now full-time directors of campus stores,

food services and housing, and a manager of the print shop. These four administrators report to a director of auxiliary enterprises who, in turn, is responsible to the vice president for business affairs and treasurer.

Variety of Indirect Charges

In respect to accounting, the auxiliary enterprises are charged a wide variety of indirect and university-allocated expenses in addition to all direct costs of operation. These indirect and allocated charges include:

1. Federal Old-Age and Survivors Insurance on all auxiliary enterprise employees.

2. Retirement annuity contribution for all auxiliary enterprise employees eligible.

3. New York State workmen's compensation insurance on all employees.

4. Insurance, including fire and building contents, rent loss (dormitories), plate glass, burglary, theft and larceny, fidelity bond, money and securities, general comprehensive liability, and sprinkler leakage. We are also anticipating picking up business interruption insurance.

5. Rent. The campus stores, food services, and print shop are charged for space occupied in university buildings on bases comparable to similar commercial establishments in the New York area. Rental charges include area heat.

6. Depreciation. This is a funded replacement reserve for furniture, fixtures and equipment. All such items have been set up on 5, 10, 15 or 20 year life bases for charge purposes.

7. Internal and outside auditors' charges.

8. Utilities. Gas, electricity and steam (heating steam in residence halls, auxiliary steam in food services).

9. Debt service. Interest, principal and sinking fund contributions are charged to residence halls and food

service units located in buildings constructed with H.H.F.A. funds.

10. Interest at 4 per cent per annum is charged for working capital advances from general university funds.

11. General university overhead is charged to the auxiliary enterprises and is made up of portions of charges for the controller's office, fund accounting section, auxiliary enterprise accounting section, accounts payable section, payroll department, data processing unit, finance department, purchasing division, and personnel division.

Ask Others' Help

The process of developing the various indirect, allocated and overhead charges over the past several years has, of course, required continual study and refinement. Because we started from scratch, as it were, it was felt that valuable information might be obtained from other institutions which, perhaps, had been operating under the auxiliary enterprise concept. Forty-two private and publicly supported universities with enrollments of 10,000 and more were written to and asked about their cost accounting practices in regard to auxiliary enterprises. Of these, 37 replied. Their answers are summarized here.

Space rental charges to auxiliaries occupying university facilities: 20 universities make no charges at all; 4 charge rent to auxiliaries except those occupying separate buildings; 7 charge rent to the bookstore only; 1 charges its bookstore 10 per cent of gross income as rent but includes general university overhead as a part of this charge; 1 charges 2 per cent of gross sales to both food services and bookstores, including all utilities; 1 charges rent to its food services but includes rent as a part of the general overhead charge in the case of the

bookstore and print shop; 3 did not indicate what their practices are.

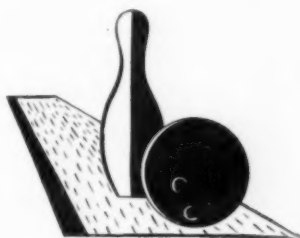
Utility charges (gas, electricity, heat, auxiliary steam): 19 universities charge all utilities to the auxiliaries; 4 charge no utilities; 1 charges utilities to its food services, bookstore and dormitories but not to its print shop; 1 charges electricity only; 1 charges electricity only to food services only; 1 charges electricity and gas to its food services but nothing to the bookstore; 3 charge utilities to dormitories and married student housing only; 1 includes utilities as a part of a 2 per cent charge on gross sales to both food services and the bookstore (other auxiliaries are metered and charged direct); 1 charges food services and dormitories for utilities, but includes utilities as a part of a general overhead charge for the bookstore and print shop; 1 charges all utilities to food services only; 2 charge utilities to housing and food services only; 2 did not indicate what their practices are.

Insurance charges: The majority of universities did not indicate in detail the types of coverage carried by and charged to the auxiliaries; 15 stated that all types of insurance carried are charged; 4 charge no insurance; 1 charges fire and windstorm insurance to residence halls and food services only and nothing to other auxiliaries; 1 charges insurance to all auxiliaries except the print shop; 2 charge fire and extended coverage and workmen's compensation insurance to all auxiliaries; 1 charges fire and extended coverage only to all auxiliaries; 1 charges insurance to dormitories and food services only; 1 charges insurance to food services only; 4 charge insurance to dormitories only; 1 includes insurance in the rent charge to food services, charges it direct to dormitories, and includes it as a part of a general overhead charge to the bookstore and print shop; 1 charges insurance to auxiliaries having their own buildings but not to those in university facilities; 5 did not answer.

Debt service charges for buildings and other capital construction done with borrowed funds: 14 charge debt service to auxiliaries wherever applicable; 3 require only dormitories and food services to amortize their facilities; 1 requires dormitories, food services, and the bookstore to amortize their facilities but not the print shop; 1 charges no debt service; 2 charge

debt service to residence halls but do not allocate the charge between housing and food services areas located in a single building; 1 finances all capital construction and improvements from an auxiliary enterprise reserve fund; 3 charge debt service to dormitories only; 1 institution is precluded by state law from including debt service as charge against operations; 1 charges no debt service for food services, includes debt service as a part of an overhead charge in the case of the bookstore and print shop, and lumps interest, insurance and depreciation as a single charge for its dormitories; 10 did not indicate their practices.

Accounting services charges: 10 institutions charge no accounting costs to their auxiliaries; 10 provide the bulk of accounting work for auxiliaries within the auxiliary organizations but do not charge for accounting and related work done by the university's accounting offices; 1 charges \$50 per



month to each auxiliary for all accounting services; 1 charges its bookstore for all accounting services but only a portion to food services and the print shop; 1 charges accounting services to food services and dormitories only; 7 include accounting services as a part of general university overhead; 4 charge complete accounting services to all auxiliaries; 3 did not indicate their practices.

Depreciation charges to establish funded replacement reserves for furniture, fixtures and equipment: 10 institutions have no provision for such reserves but charge all replacements to current expense as they arise; 7 have replacement reserve charges applicable to all auxiliaries; 1 has a replacement reserve for the bookstore only; 1 has a depreciation charge of 1 per cent of gross income for its bookstore and food services only; 2 charge depreciation to dormitories only; 1 is precluded by state law from including a depreciation charge as an operat-

ing expense; 1 provides a replacement reserve by means of a 7% to 10 per cent annual charge on the value of furniture, fixtures and equipment; 14 did not indicate their practices.

Interest charges for working capital advances from general university funds: 5 institutions make no charge to the auxiliary enterprises for working capital advances; 4 stated that advances are seldom necessary and that no interest is charged when advances are made; 5 stated that no advances are ever made to auxiliaries; 1 charges interest on advances made only to dormitories; 3 charge interest to all auxiliaries for advances; 19 did not indicate what their practices were.

General administrative overhead on service charges: 23 make no charges to the auxiliary enterprises for general university overhead; 2 charge overhead to all auxiliaries on the basis of 3 per cent of gross income; 1 charges for purchasing, personnel, payroll and accounts payable services on a direct labor basis; 2 stated that all business office services are charged for; 1 charges auxiliaries for general overhead on the basis that total administrative costs are attributable proportionately to instruction and auxiliary enterprises (this has averaged 8 per cent of the auxiliaries' gross income); 1 charges a share of purchasing and accounts receivable costs to residence hall operations only; 1 charges on the basis of 2 per cent of direct expenditures of each auxiliary; 1 charges on the basis of 3% per cent of total expense of each auxiliary; 1 charges 1 per cent of bookstore gross income, 1% per cent of residence halls, and 2 per cent of all other auxiliaries; 1 charges 1 per cent of bookstore gross income and 2 per cent each of residence halls and food services; 1 includes general university overhead as a part of its 10 per cent of gross income rental charge; 2 did not answer.

It is apparent that the wide variations in cost accounting practices for auxiliary enterprises reflect the equally diverse practices in institutional accounting, generally. New York University feels strongly that auxiliary enterprises both should and can be operated on a 100 per cent self-supporting, self-liquidating basis. Subsidies in any form, regardless of whether they are hidden or contemplated, divert funds from instruction and student services. ■

**Report of a limited survey of wages, hours,
work assignments, tools, methods,
materials and costs per square foot of:**

JANITOR SERVICE

L. L. BROWNE
Physical Plant Department
University of Arkansas, Fayetteville



UNIVERSITY OF ARKANSAS — PHYSICAL PLANT INSPECTION RECORD OF JANITOR SERVICE

	Building	Sq. Ft. Floor Area Served	Home Address	Home Phone	First Employed	Janitor
DATE						
Rest Rooms (16)						
Floors						
Stools						
Lavatories						
Urinals						
Toilet Paper						
Paper Towels						
Markings						
Soap						
Class Rooms (12)						
Floors						
Chairs						
Black Bd.						
Chalk						
Shades						
Lights						
Corridors (10)						
Entrances						
Floors						
Base Boards						
Hand Urns						
Lights						
Offices (10)						
Floors						
Dusting						
Doors						
Waste Baskets						
Drinking Fountains (5)						
Cleaning						
Regulation						
Janitors Closet (10)						
Clean Mops						
Clean Brooms						
Sink						
Floors						
Tools						
Interest In Work (10)						
Meetings						
Attendances						
TOTAL POINTS						
INSPECTOR						

WHAT items of janitor service concern the physical plant administrator — number of personnel or square feet assignment, costs per square foot per year, wages paid and hours worked, fringe and other benefits, compared with like institutions?

Because of the differences in practice of various sized institutions, the information supplied by the recent N.A.P.P.A. questionnaire has been separated into two divisions. The division called "A" covers institutions with academic buildings of more than 700,000 square feet, and "B" covers those of from 70,000 to 700,000 square feet.

There were 37 replies to the questionnaire, 14 in Division A running from 703,000 to 2,331,000 square feet, and 23 in Division B running from 71,000 to 661,000 square feet. The questionnaire was further divided into three sections: conditions and costs, methods, and duties and tools.

In a discussion at the N.A.P.P.A. meeting at the University of Pennsylvania in 1942, the majority believed that 20,000 square feet per man was the maximum assignment for reasonable results. The September 1958 report of the physical plant operations subcommittee to the Texas Commission on Higher Education recommends an assignment of 14,350 square feet per man, an average salary base of \$2460 per year, 40 hours per week, and a 10 per cent (of labor cost) al-

From a paper presented at the meeting of the Central States Association of Physical Plant Administrators, Topeka, Kan.

Table 1 — Conditions and Costs of Janitor Service in 25 Colleges

Division	No. With Data	Sq. Ft. per Man	Labor Costs per Sq. Ft. per Yr.	Material Costs per Sq. Ft. per Yr.	Total Costs per Sq. Ft. per Yr.
"A"	12	9500 to 42,930	8.85c to 21.2c	0.75c to 3c	10.02c to 23.8c
"B"	13	5522 to 22,497	3.45c to 23.0c	0.70c to 3c	4.88c to 26.0c

Table 2 — Number of Employees and Annual Wages Paid for Janitorial Service in 35 Colleges

Division	Number of Emoloves in Various Categories and Their Yearly Wages						Total
	Supervisors	Foremen	Subforemen	Janitors	Janitresses	Other	
"A"							
No.	0 to 3	0 to 3	0 to 16	21 to 114	1 to 18	0 to 42	35 to 160
Wages	\$3600 to \$5500	\$2700 to \$6216	\$2160 to \$4020	\$1920 to \$3000	\$1440 to \$2580		
"B"							
No.	0 to 5	0 to 5	0 to 5	3½ to 44	0 to 18	0 to 8	5 to 51
Wages	\$2700 to \$5000	\$2124 to \$3756	\$2100 to \$3516	\$1140 to \$4100	\$1140 to \$2600		

lowance for materials and supplies. These recommendations result in a cost of 19 cents per square foot per year.

Time Studies of Janitor's Work

The scientific method of determining the proper work load for a janitor is to make time studies of everything he does. The University of Minnesota has done this. The square-foot-per-man method is empirical but comes much closer to equalizing the load than does guessing at it. Factors affecting the foregoing figures are standard of cleanliness required, occupancy (such as night classes), and mechanical or power equipment.

Concerning residence halls, four physical plant departments had supervision in Division A and 12 in Division B; one was included in the physical plant budget in "A" and seven in "B." Physical plant supervision of janitor service in all buildings should guarantee use of proper methods and materials and vigilance for needed repairs. Costs of janitor service should be known whether they appear in the physical plant budget or not, as residence halls should pay their own way and not be subsidized by the physical plant department.

Institutions with no supervisors may have foremen instead, and those with no foremen may have supervisors and/or subforemen. The heading "Other" usually indicates flying squads to take care of accidents, sickness and unusual duties. There are cases in which janitor service takes care of special setups

for high school meets, 4-H Club meetings, and special seminars. These duties are not strictly janitor service and should be charged to the particular activity involved, if only for the information of the administration as to what such activities cost.

The 37 colleges and universities reported the hours worked by janitorial employes each week and also the length of the vacation period allotted these workers. They were as follows:

In Division A, seven colleges reported a 40 hour week; six a 44 hour week, and one a 48 hour week. In Division B, seven colleges reported a 40 hour week; two a 42 hour week; 11 a 44 hour week, and one each a 46, a 50, and a 54 hour work week.

As to vacations with pay, in Division A, 12 colleges allowed 12 days; one allowed 18 days, and one 48 days. The latter two were for persons with long service records. In Division B, 16 colleges gave a 12 day vacation; two 15 days, one none, and the rest varied from six to 14 or perhaps more for long service.

On only one campus in Division A were the employes unionized and then only partially; two in Division B were unionized. In Division A, all janitorial employes were under social security; one did not answer this question in Division B but the other 22 answered it affirmatively.

Five of the 14 reporting colleges in Division A require the janitorial staff to punch a time clock. In Division B, 13 of the 23 reporting colleges require this practice.

Methods

The janitor has considerable responsibility in cleaning and protecting the finish materials of a building. Oil on asphalt tile or blackboards will ruin them. The wages paid are at the lower end of the scale; consequently the men attracted to this job can be expected to be below the average in I.Q. and ability. It seems unfair to such a man, who perhaps has never seen running water, to start him on a job involving the use of many materials and tools without the proper instructions and training or without very simple written instructions on the materials and how to use them. Such instructions should be incorporated into a manual. Even a janitor with several years' experience may not remember what to do or what to use if someone spills a bottle of ink on a terrazzo floor.

In Division A, only two institutions had written instructions. Six held meetings and eight did not. Of the six that held meetings, three held monthly meetings, one held a meeting every six weeks, and two held them quarterly. In Division B, 10 had written instructions and 13 reported none. Twelve held meetings and 11 did not. Of the 12 holding meetings, seven were held monthly, one semimonthly, three quarterly, and the other college had no set time.

In answer to the question pertaining to the training given to a new employe, the majority in both A and B divisions had an experienced janitor or a supervisor train the new man.

Table 3 — Other Duties Required of Janitorial Staff in Colleges Reporting in Survey

DUTIES	DIVISION				DUTIES	DIVISION			
	YES	NO	YES	NO		YES	NO	YES	NO
Varnishing floors	0	14	2	21	Turn on heat	4	10	6	17
Sealing floors	8	6	13	10	Turn on air conditioning	5	9	3	20
Waxing floors	11	3	23	0	Replace burned out light bulbs	13	1	14	9
Removing wax	11	3	22	1	Control pests	10	4	3	20
Dusting library books	4	10	12	11	Make minor repairs	1	13	9	14
Washing windows	14	0	22	1	Report repairs needed	14	0	22	1
Cleaning venetian blinds	13	1	21	2	Report complaints	13	1	17	6
Servicing graphite locks and hinges	1	13	5	18	Clean snow and ice from entrances	10	4	16	7
Washing walls	10	4	19	4	Clean and empty sand urns and tilt-top cans	13	1	20	3
Washing woodwork	11	3	21	2	Run errands for faculty and staff*	3	11	4	19
Locking bldg.	12	2	10	13	Supply chalk and erasers to classrooms and labs	10	4	22	1
Unlocking bldg.	12	2	13	10					
Unlocking classrooms, lab	11	3	12	11					
Turning off lights	14	0	18	5					
Check ventilation	5	8	11	12					

*In one large midwestern university these errands interfered so much with the regular janitor work that the janitors were changed to work at night, with the exception of a few to handle day complaints.

The theory behind the use of squads in janitorial service is that a few men repeatedly doing the same kind of work will become so skilled that they will cover more square feet per man-hour and do a better job at it than a man doing the task occasionally. Only institutions with large areas can use many squads effectively. However, the economic use of squads for scrubbing, stripping and waxing floors and for washing windows is worthy of individual investigation.

In answer to the question, "Do you have an inspection and grading system for gauging the class of work performed, and is recognition or additional remuneration given for good performance?" eight in Division A answered Yes and six said No to the first part of the question, while 12 said Yes and two said No to the second part. In the "B" division, four answered Yes and 19 said No to the first part of the question; five said Yes and 18 said No to the second part.

Both divisions show a larger number giving recognition or added remuneration than have systems of inspection and grading. A legitimate question would be: How can one or more men be fairly picked out of a large group without some record of comparison of their work?

Duties

To determine what items the various institutions include in the duties of the janitor, a list was made. From

the accompanying tabulation of the questionnaire (Table 3) you can compare the duties your college requires with those of other institutions.

Sweeping, dusting, cleaning chalk troughs, scrubbing floors, cleaning blackboards, washing interior glass and mirrors, and supplying paper and soap to toilets were included by all institutions in both divisions.

Tools

If he is to execute his duties properly, the janitor must be provided with tools. Floor brush (bristle), dustcloths, scrub mop, scrub buckets, dustpan and vacuum cleaner were sup-

Table 4 — Other Tools Provided Janitorial Staff in Colleges That Reported

Tools	Division			
	Yes	No	Yes	No
Radiator brush	13	1	21	2
Hand dust mop	11	3	21	2
Floor brush (string)	13	1	23	0
Wax bucket	11	3	22	1
Wax applicator	12	2	22	1
Window cleaner sprayer	8	6	19	4
Toilet brush	14	0	22	1
Chamois	8	6	10	13
Sponge	11	3	21	2
Scrubbing & polishing machine	14	0	22	1
Squeegee	12	2	18	5
Pliers	6	8	16	7
Hammer	6	8	16	7
Screw driver	7	7	16	7
Saw	1	13	7	16
Hook bar	0	14	2	21

plied by all institutions in both divisions. Other tools provided are shown in Table 4.

Our chief custodian was interested in the results of the N.A.P.P.A. questionnaire and so I asked him what methods he used to improve janitor service. I quote his reply:

"Here at the University of Arkansas, we in the supervising department recently set a new goal for ourselves. We decided, after study, to screen prospective employees more carefully as to their adaptability and past employment. To improve the service of the present personnel, we inaugurated a point grading system. In our monthly meeting of janitors, we explained this system fully, and to our surprise it was enthusiastically received. To make the work easier, we set a standard for each janitor closet. We worked out a proper arrangement, installed shelving racks, provided all necessary tools and equipment, including stepladders with safety rubber feet. We required that each item be kept in its place — broom, wet mop, bucket, trash can — and that all these be cleaned before they are stored away.

"Between semesters we make a major cleanup. Wood, asphalt tile, terrazzo and concrete floors, all receive their respective cleaning process. After wax has been applied and the floors are in daily use once more, constant vigilance is in order. We have installed gliders on all chairs in classrooms, reading rooms, and offices, and old, worn-out gliders must be replaced, to help preserve the appearance and coating of the floors.

"Since sweeping floors is a major part of our daily work, we stress the proper use of sweeping compound as to quantity and quality. Oil is one of the ingredients of a good sweeping compound but it also has its hazards.

"In every building the entrance door, the door mat, the corridor floor, the stairway, the tilt-top can, the sand urn, the doorknobs, the area of the soft drink dispensers, the restrooms, all tell us their story. Properly maintained they are a delight to the occupants and visitors."

When you can instill sincerity and enthusiasm in your janitor foremen, you will be on the way to better janitor service.

The standards of janitor service are set by the administrator. The results are a measure of his success. ■

Essentials of a Good Perpetual Inventory System

RICHARD G. VOGEL

Treasurer and Business Manager
Washington University of Topeka, Topeka, Kan.

WHY PERPETUAL INVENTORY CONTROLS?

1. Most important of all is the matter of accounting for all assets, regardless of their form.
2. You have a record of the property and can determine the custodial responsibility for the property.
3. You have valuable information that can be used for insurance purposes.
4. You are in a position to provide the administration with essential information.
5. A perpetual inventory system is an aid in purchasing and in utilizing equipment.
6. Contributors, particularly the larger ones, prefer to make gifts to institutions that give evidence of financial management that is completely organized.

WHAT would run through your mind as you received each of the following telephone calls:

1. A person who refuses to identify herself asks if you have lost a typewriter. She believes stolen property belonging to your institution was brought into her home. She gives you the serial number and says she will call back in 30 minutes.

2. A department head calls to report that his microscope case was broken into during the night and that six microscopes are missing. He wants you to report it to the police.

3. The finance committee chairman of your governing board calls to obtain the value of the equipment and furniture in the residence halls. He needs this information for a noon meeting, and it is 11:25 a.m.

4. The recently appointed head of the physics department telephones for a list of the equipment and furniture for which he will be held responsible.

5. You are awakened at 2 o'clock in the morning by the ringing of the telephone. An excited voice tells you that Old Main, the administration building, has burned to the ground.

The thoughts going through your mind and the nature of your reply as you handled each telephone call would be largely dependent upon your sys-

From a paper presented at the National Association of Educational Buyers meeting, Kansas City, Mo., 1959.

tem of inventory control and perpetual records.

Regardless of the particular needs of your college, inventory control can provide many advantages.

1. It provides you with the possibility of an accurate accounting of *all* assets. Inventory records are an integral part of the accounting system, and a complete system demands it.

2. You establish definite responsibility for property. If you have good records and procedures, you benefit from the psychological effect upon the person charged with the custody of the property.

3. You have valuable records for insurance purposes. They may be used for determining coverage, recovering losses, revising insurance schedules, and reporting to rating bureaus. You also have current information on equipment for federal, state or association reports and surveys.

4. You have information readily accessible for administrative purposes, so that movable equipment may be used more effectively.

5. You have both an excellent guide to future purchasing and a permanent history of past purchasing.

6. Large contributors and foundations are more interested in institutions if there is good evidence that the financial management is well organized, efficient and thorough.

Essentials for Good System

What are the essentials of a good perpetual inventory system? Regardless of the problems you face, there is some consensus on the seven points listed here:

1. Designate one person to be responsible for accomplishing this part of the accounting responsibility. This is not a clerical task. In small institutions it probably should be the responsibility of the chief business officer; in large institutions, the responsibility should fall on an employee in the secondary management level within the business office. An effective program requires a well organized system under an accurate and persistent person with authority to carry out the responsibilities.

2. Plan the installation adequately, carefully and completely. Visualize the entire system in operation, and provide, step by step, the procedure from the first physical inventory to the ultimate disposition. Determine what you

want your system to accomplish and make it simple, flexible, and clear-cut. Many an honest attempt bogs down because too much is expected or the system is too complicated.

One large institution with \$10 million worth of property of this class does not tag or mark any equipment except that used in auxiliary enterprises. However, it does maintain a perpetual record of all equipment by building and department with cards kept by room in each building on all equipment costing in excess of \$10. Another institution not nearly so large charges against its equipment accounts only items costing in excess of \$75; another \$50, and others \$25, \$10, \$5 and \$3.

One System Not for All

A system that may be of value to one college or university may be of relatively little value to another. If your institution is large enough by volume to justify electronic computers or the more conventional business machine equipment, you can readily have a more elaborate breakdown than one kept manually. You must determine the *type* of fixed assets subject to inventory control, the minimum dollar *valuation* for items under this classification, as well as the means of *identification*.

3. Provide for a periodic check of the physical property against your perpetual records. If possible, do this once a year, especially when the responsibility for the custody of the property changes from one person to another, as in the case of department heads. In some large universities this may take place only once in four or five years. However, in these instances, the records are undoubtedly kept on such basis that a list of property for which a person is held responsible can be presented to him at least once a year. A business officer can't constantly be chasing items, yet he can't afford to ignore them or to let errors accumulate in the inventory.

4. Tie in the valuation of your perpetual inventory records with your accounting records and financial reports. The most generally accepted method of valuing property in this category is to keep it at cost. Even if the property is depreciated, the depreciation record or amount may be kept by group and only used in supplementary records or in financial reporting. There should be

at least an annual reconciliation between the value at the beginning of the year, additions, deductions or write-offs, and the end of the year balance.

5. As chief business officer and the person directly charged with the responsibility, periodically review the system itself: the procedures, techniques, objectives and accomplishments from the point of good accounting and institutional value. This requires some imagination and initiative.

6. Properly house and store your inventory records. They should be safeguarded with the same precautions exercised with other accounting records.

7. Justify as to cost whatever system you have. It is pure rationalization to say that no system of control is the cheapest. If this were true, the cheapest administration to have in any administrative area of the university is to have none.

In too many instances appropriate records of physical property are maintained only because the legislature has demanded it, the governing board requires it, or a superior officer at the university requests it. Naturally, this procedure sometimes leads to complex systems, costly surveys, and the half-hearted enthusiasm of the business office staff.

No Excuse for Negligence

We rent lock boxes to safe-keep securities. We buy expensive safes and vaults and have inner compartments installed to protect our cash. We have our cashier daily account by fund for all cash received. We closely control our checks and expenditure records. *They should be and no doubt our internal control and supervision in these areas need tightening.* Yet when the magic trick of converting cash into property has once been accomplished some business officers feel free of all accounting and control responsibility. Converting cash into some form of property merely exchanges one asset for another. The fact that it may be more difficult to account for and control this form of property is no legitimate excuse for being negligent about it.

If you have a good system, be proud of it; if you do not have an adequate system or have none at all, think seriously of making it an immediate objective. ■

ROBERT S. MULLEN
Purchasing Agent
Harvard University, Cambridge, Mass.

Business Officers, please note:

Nobody knows better than you know what large sums of money are spent for purchasing foods. Moreover, customer satisfaction is intimately related to the quality of food bought. The business officer knows the necessity for operating efficiency in order to keep within the college budget. Frequently, the business official himself supervises the food service and its logistics component, food purchasing. The author of this article is a newcomer in the field, but he speaks through the framework of the organizational setup at Harvard University. At Harvard last year the sum of \$1.5 million was spent for food products and some 3,130,000 meals were served.

A Purchasing Agent's View on Food Procurement

It's the old controversy over whether the food should be bought by the director of dining halls or by the purchasing agent. This author suggests that the responsibility should be thoroughly blended.

WHAT of the long-standing controversy regarding whether food procurement should be the responsibility of the dining halls director or the purchasing agent? Predominant practice would seem to confirm its being more appropriately a dining hall director's responsibility. It depends really on the particular institution involved and its organizational setup.

Food procurement can be efficiently handled either way, but if it is the purchasing agent's responsibility, there must be close cooperation and coordination between the dining halls director and the purchasing agent. In working practice, the program must be carried out as a thoroughly blended responsibility.

Situation at Harvard

In July 1958, the 323 years of precedent was broken at Harvard, and food procurement officially became a responsibility of the purchasing agent.

From a paper presented at the Eastern Association of College and University Business Officers Workshop, 1959.

A capable dining hall director retired at that time, and this change provided an appropriate occasion for considering a responsibility shift. A management consultant study made by specialists in the food service field resulted in the recommendation that, with the type of purchasing office organization available at Harvard, the shift be considered.

The new dining halls director preferred this division of duties, as the change would relieve him of the pressure of many time consuming procurement details. As a result, we now have a purchasing office-dining halls branch located physically in the director's office, an arrangement that I feel is a requirement from the standpoint of immediate accessibility of purchasing personnel and records to the firing line of decision.

Approach to Problem

What should be the general conceptual approaches to food procurement? I believe they are as follows:

(Continued on Page 56)

1. To understand that procurement is only one component, essentially a logistics component, which must be thoroughly integrated into the complete journey of food from vendor to stomach. It is necessary to establish, first of all, in conjunction with the dining halls staff, the minimum acceptable quality for operational purposes, giving consideration to customer satisfaction, dietary planning, and operational efficiency with reference to the cost of materials and labor and the availability of income.

2. To understand thoroughly the operational needs in terms of (a) delivery requirements, including such factors as availability of storage space and frequency of delivery, in order to ensure an uninterrupted flow of materials into the serving process, and (b) service requirements required of vendors of equipment, such as ice cream freezers and coffee urns.

3. Once this framework has been established, the procurement process can proceed with the following general pattern of approach: (a) to translate the quality requirement into specifications articulate enough to leave interpretation at a minimum but not so tight as to restrict competition or to be incompatible with industry practices; (b) to buy the specified quality in terms of competitive bid, negotiation, spot purchase, market shopping, or long-term contract; (c) to develop an adequate inspection program in the form of sample testing by the institu-

tion, by the Department of Agriculture or by outside testing laboratories, or simply by thorough inspection by the receiving personnel, or by a combination of several of these methods.

This then, I believe, is the sound conceptual approach to be brought to bear in all areas of food procurement, namely, quality specification, appropriate procurement technic, and careful inspection. If any of these three components are left out, the purchasing agent is probably exposing himself to vendor deviations that will defeat his objective.

Harvard's Operation

It may be appropriate to give a framework of reference with respect to the Harvard dining halls operation.

We have 11 dining halls spread out over Cambridge and Boston. Five of them are serviced by a single central kitchen via underground tunnels, so that in fact we have only seven separate delivery destinations to which food is shipped by vendors.

As to location, two of the halls (in both cases graduate student halls) are in Boston, and the other five are in Cambridge. All told, we have three graduate student halls (law, business and medical) and four undergraduate halls, of which one is a freshman hall.

Last year we spent approximately \$1.5 million for food products and served about 3,130,000 meals.

All the halls vary as to storage capacity. (None of them have enough

and most of them have inadequate storage space for meats and poultry, fresh vegetables, canned goods, and groceries.) We have no one single central warehouse for food products; hence, deliveries must be made continuously throughout the week (for example, three times a week for meats and poultry; fresh fruits and vegetables on Monday, Wednesday and Friday, and daily for milk, cream and ice cream).

A no-seconds policy prevails in only two halls, both graduate student units. In all the rest, there are unlimited seconds with respect to everything.

Each hall has its own manager who reports to the central director's office. One hundred per cent of the buying is centralized through the purchasing office-dining halls branch located in the director's office, the various halls submitting their requirements weekly on some items such as meats, poultry, fresh fruit, and vegetables, for example, and telephoning their needs direct to vendors on such items as milk, cream and ice cream, which are under university contract negotiated by the purchasing office.

I should like to mention what we have attempted to do in food procurement at Harvard since July 1, 1958, but will be able to cover only certain areas here.

Meats and Poultry

Meats and poultry expenditures accounted last year for about 32 per cent

Most institutions have inadequate storage space for certain food items such as meats, fish and poultry so deliveries of these items must be made continuously

throughout the week. These foods account for the largest expenditure of the food cost dollar. Meat is always a critical area for management control in any food service operation.



of the total food cost dollar, or approximately \$493,000. This is the critical area for management control and, therefore, deserves primary emphasis.

As of July last year we hired a man to serve full time as buyer-inspector. This person was formerly the head of the meat and inspection branch of the Department of Agriculture's office in Boston and knows thoroughly meat products, specifications and vendors' facilities. It is his job to recommend vendors, to request formal bid solicitations, to summarize and recommend bid awards, and finally to inspect the merchandise at vendors' plants for specification compliance, marking every item with a special Harvard acceptance stamp.

We have attempted to build three factors of latitude into our specification-competitive bid-inspection process for major meat items.

1. *U.S. grade or grade equivalent.* While all products must be inspected for wholesomeness by the Department of Agriculture, we will accept bids on either merchandise actually bearing a grade stamp of the Department of Agriculture or merchandise that is equivalent in quality to the midpoint or higher of the U.S. grade. In the Boston area, about 75 per cent of meat and poultry products bear a U.S.D.A. grade stamp but many good buys are available in the remaining 25 per cent.

2. *Bids on two grade levels.* For many items, we take weekly bids on two grade levels, namely, U.S. Good and U.S. Commercial, and then select the best buy. The higher U.S. Good grade has a better yield than U.S. Commercial in terms of serving meat per pound of purchase and because of less shrinkage in the cooking process, entirely aside from the factors of greater palatability and student preference. This differential in yield can, by careful test-cutting and cooking analysis, be reduced to fairly precise terms and then translated into its equivalent differential in purchase price per pound.

If the price variance between bids of U.S. Good and U.S. Commercial exceeds the yield differential, we select the lower U.S. Commercial grade. If the price spread is less than the differential, we select the U.S. Good bid.

3. *Bargain purchases offered by vendors.* The third latitude we use is to depart from the competitive bid process

to take advantage of concession buys from vendors who, because they are overstocked in certain cuts or are anxious quickly to turn over their working capital, will offer quantities of meat at very low prices. Because we have limited storage facilities, we have been able to make these concession buys on the basis of storage by the vendor at no extra cost, to be drawn as needed up to an agreed upon time limit, and with billing to be made only at time of shipment.

Our competitive bid process involves a 14 to 18 day time lag between requisitioning from and delivery to the dining halls. Requisition quantities come in from all halls to the central office every Wednesday and are consolidated. Bid requests go out the same Wednesday for receipt and award by the following Wednesday for delivery in the next following week on a Monday, Wednesday or Friday basis.

For purposes of control, continuity of perspective, and procedure audit, we have come to find the following records of vital importance:

Vendor bid record. This is simply a long-period summary sheet showing for each week the vendors who were asked to bid and whether they submitted bids.

Weekly bid summary. This record shows the complete summary of bids, the vendors receiving the awards, and any pertinent remarks. The summary is presented weekly to the director of dining halls, who reviews and initials the recommended award prices.

Purchase record. This is a 5 by 8 inch card record in a *portable* index file with a separate card for every meat and poultry item, and recording for every purchase the purchase order number, vendor, quantity purchased, grade level, price per pound, and date purchased.

The purchase record is extremely valuable in providing continuity of price review. While the weekly bid summary is being analyzed, the low bids can be quickly and easily compared item by item with the card purchase record to examine and explore reasons for variation from past performance. The card record also gives continuity of perspective longer range as to what vendors seem to be getting the larger share of bid awards, what are the trends in price as compared to posted market prices (Department of

Agriculture price releases, *Wall Street Journal*), and a ready basis for analyzing relative quantities of various items purchased over a period of time.

Two other statistical control mechanisms. These are the weighted index of market price variation and the cost per student meal served.

At the end of each month, a statistical index weighted on a tailor-made basis to fit the Harvard procurement situation is prepared by the purchasing branch. This index isolates and identifies the factor of market inflation



Harvard now has a full-time buyer-inspector for its poultry and meats.

or deflation as between the current month and the corresponding month of the previous fiscal year.

Each of the dining hall units keeps a daily record of the dollar value of all food commodities issued out of inventory and charged to the day's feeding operation as well as a record of the number of students fed at each meal. These records are summarized and submitted weekly and monthly to the director's office, where they are used for evaluation from a management control standpoint. The dollar value of food cost in any category divided by the number of students served gives a cost per student meal served for any category or for the total food cost.

Especially in the area of meats and poultry (which account for about 32

per cent of total food purchase cost), these cost-per-meal-served figures as well as the total dollars spent and total meals served provide a wealth of statistical detail. Our dining halls purchasing branch has complete access to all these figures and makes an analysis of them every month for the director for his evaluation and action along management control lines.

These statistics provide, with respect to the meats and poultry area, the following: (1) cost per meal served for meats and poultry for the entire dining hall operation and every individual component thereof; (a) from month to month and cumulatively for the period in the current fiscal year with percentages indicating the changes involved; (b) the percentage changes month to month and cumulatively over the corresponding periods of the previous fiscal year. Here our weighted average index of market variation can be deducted from the percentage changes from the previous year in order to isolate the net changes resulting from consumption variation. (2) The relative magnitude of each component unit in relation to the entire dining hall operation in terms of total dollars spent for meats and poultry. (3) The comparative performance of each component and the entire operation in terms of the per cent ratio of use of meats vs. poultry.

Information for Control

From the foregoing statistical evaluation comes quick and readily accessible information for management control with respect to: the comparative cost efficiency performance of one unit to another; a perspective as to the trend of cost efficiency performance for the cumulative period; the extent to which the various dining hall managers are taking advantage of market opportunities in terms of menu planning.

With a centrally planned standard menu for all or most of the halls, these statistics will even more closely reflect the comparative cost performance of each unit.

All of the foregoing with respect to meats and poultry procurement may seem like excessive or elaborate detail, but we believe that, in this area, because the stakes are so high (no pun intended) the battle for cost control can, in large measure, be won or lost.

(To Be Concluded Next Month)

You Can Take the Monotony

WITH our universities growing ever larger, the task of feeding is becoming ever greater. Rising costs have dictated housing units of six, seven or even ten hundred residents in contrast to the housing units of 150 residents of less than a decade ago.

Gone are many of the quiet, sedate dining halls with waiter service and single seating. Today cafeteria lines permit 12 students to push through per minute. Our dining halls have two and a half turnovers in a mealtime, and the student who can't inhale a complete meal within 10 minutes is a "square."

Costs Dictate Size

We are going to have to accept these larger dining halls, because building costs dictate their use. We must influence, if we can, the architect and university officials so that they will give the director of food service a voice in the planning. We must try to have designated areas for special types of food service. We must allow space for a small dining room for committee meetings. We must have some means of partitioning one large area, if one large area there is.

Monotony starts at the dining room door. Much of the atmosphere of a dining room depends on the color scheme. At Purdue we learned through experience what a wrong choice of paint color in a dining room can do. Two small dining rooms, built in 1951, are identical in shape and size. In one the walls were painted mauve, and the chair backs are blue. In the other the walls were painted gray, and the chair backs are chartreuse. The counseling problems in the area with mauve walls have been 20 times as great as in the gray room. The food served in the two rooms came from the same pots, yet it was accepted in one hall and not accepted in the other. At a vacation break, the mauve walls were repainted blue, and the problems immediately declined. The dining room became far quieter and more restful.

With special planning, it may be possible even today to provide a limited amount of waiter service. "Trade" parties are popular on the Purdue campus, and the girls enjoy having table service at these events. Even with cafeteria service, it is possible to change the style of service by having the silver, water, beverage and salad placed on the table and requiring the resident to pick up his dinner plate only. It may be possible to have the dinner and salad plates cleared and the dessert served. If not, the resident can pick up his dessert at the time he picks up his dinner plate.

The first impression a student receives when he walks into the dining room is significant. There's the menu board. It may be in need of repair. Some letters may be missing. If so, the student gets a poor impression before he even sees his food. If the president of the college were to walk in tomorrow, his presence might lead the food service director to think in terms of a new menu board. If one is needed, it should be purchased now. The residents see it every day.

Does the menu board announce roast beef, or choice ribs of beef; chicken, or Southern fried chicken? Here is the food director's chance to brag a bit. The director's pride in the food service is bound to be reflected in the attitude of the students.

Perhaps the cafeteria counter needs a little sprucing up. It isn't necessary to serve all food items in the same sort of dish. A parfait glass or a sherbet glass is more attractive than a sauce dish for ice cream or gelatin.

Employees ought not be allowed to shove a tray of salads on the counter without placing each dish on the counter top. They should line up the pie points and see that all points face in the same direction.

Women students like fruit; moreover, they are diet conscious. It takes little time to serve a choice of canned or frozen fruit along with the heavier desserts like pie and cake. Cheese served with crisp, toasted or plain crackers makes a good dessert.

From a paper presented at the National Food Service Association, Chicago, 1959.

Out of Dormitory Dining

MAXINE WILSON

Director of Food Service, Women's Residence Halls
Purdue University, Lafayette, Ind.

Portions should be standard sized. No one likes to feel cheated.

On the hot counter, colors can be mixed to whet the appetite. There is no need to place corn and squash side by side, when an inset of peas would enhance the appearance.

The maraschino cherry is not the sole accent for salads. Toasted coconut, cheese balls rolled in nuts, toasted almonds, slivered green peppers, peanuts, dates, celery, apples, marshmallows are highly acceptable substitutes. Whipped cream is good with crushed fruit. And it takes only a little more time to make a pineapple ring into an "S" and add a prune garnish than it does to lay the same pineapple ring flat on the middle of the plate and plunk a prune in the center.

An assortment of juices can be offered; the student may prefer fruit or vegetable juice to soup or salad.

Try Bit of Merchandising

By serving salads directly from the line, it is possible to do a bit of merchandising. This type of service is helpful when there is a shortage of personnel in the kitchen. Salad dressings can be placed on a condiment cart in the dining room or in individual cruets or salad bowls on the tables. At Purdue we find that women students prefer to add their own salad dressing, so we give them an assortment of dressings from a condiment cart.

With self-service and self-bussing has come the student habit of eating a meal without taking the dishes off the tray. Some students never look up from their meal, even to say "Hello" to the person sitting opposite. There is little appeal in a view of a metal or plastic tray. In areas where self-bussing is necessary, it often is possible to use tray stands, and let the student reload the dishes when he has finished his meal.

Music helps minimize the noise in a dining hall. Some type of table decorations or flowers adds appeal.

To reach the students is not simple. Before the first week of school a start can be made by sending menus to the

parents of new registrants and inviting them to see the kitchens. When school opens, the food service director should say a few words to the students, introducing the members of her staff and explaining some of their functions.

Residents should be encouraged to bring food ideas from home. At Purdue we have actually taken a recipe for six and increased it to 600. This type of occurrence merits mention in the residence hall bulletin.

College students should be allowed, and encouraged, to sit in on menu planning sessions. In that way they will learn why certain items cannot be served — that it isn't a matter of cost, perhaps, but of equipment, personnel, production time, or other cause.

A food survey is worth trying. Complicated surveys must be tabulated by a business machine, but a simple one-page questionnaire may do the job just as well. At Purdue last year we used a food preference survey. At a house meeting the dietitian explained the questionnaire's purposes; on it the students listed their favorite dinner meats, vegetables and so forth. Owing to the excellent cooperation between head resident and dietitian, there was a 98 per cent return.

The food service director will be well advised to find a person who is connected with the student government to meet regularly with her to discuss food questions. If this student is properly enlightened, he can represent the food service in the best light. If the person can be elected to this position, he will be even more interested.

Student groups should be encouraged to have special parties and dinners. Foreign dinners have become popular, especially in schools with a fair number of foreign students.

For a formal dinner, the Prom breakfast, or after-theater coffee, a student committee should help in the planning. A birthday party at which the residents can dress in attire typical of the month in which their own birthday falls is worth trying; each birthday group should have a cake.

A special Mother's Day breakfast

has proved popular. At this meal a linen cloth, linen napkins, and favors can be provided. The time of meal service should be set so that students can get to church, or a breakfast snack of coffee and doughnuts can be served after church.

At Purdue we capitalize on food fads. Last year it was pizza, lasagne, and submarine sandwiches. If the item proves popular, we furnish a free mimeographed copy of the recipe the second time the dish is served.

The food service department is a part of an educational enterprise, and thus has a responsibility to teach. That means that new foods must be added to the menu. In an effort to gain acceptance, it is a good idea to give away small samples of the new dish. And it is unwise to try too many new things at once. One new item a week is sufficient.

At certain periods of the year it is well not to experiment or to try many new foods. The last week of school or in February and March (winter months in our part of the country) when students spend more time indoors, we place special effort on serving popular, well accepted food items.

Where To Get New Recipes

Where can new menu and recipe ideas be found? My advice is for the food service director to get his or her name on every foods mailing list. The restaurant show is a good place to start. Then one should buy recipe books, not just quantity cookery books. I recommend special ones, such as the "Betty Crocker Picture Cook Book," the new Life cookbook, and "Menu Planner and Party Planner" by Elizabeth Hitchcock Sparks. The food sections of newspapers and the food magazines are full of workable suggestions. Visits to neighboring campuses will help, too. All food service directors have problems, and they are more quickly solved when shared.

Our buildings are places either to eat or to dine in. It is up to the food service director to decide which it shall be.

NEWS

Faculty Salaries Lag Behind Average Workers' . . . Stanford To Open Italian Campus . . . Moscow and Columbia Exchange Professors for Year . . . \$19 Million Ford Grant for Science and Engineering . . . I.C.F.A.'s Campaign in Full Swing

Finds Faculty Salaries Lag Behind Workers'

ANN ARBOR, MICH. — In the last 20 years, the purchasing power of the average American worker has increased three times as fast as that of the University of Michigan faculty member, Robert L. Williams, administrative dean, reported last month.

Since 1939 the real income of the working force of the nation has increased 69 per cent, compared to a 19 per cent gain for Michigan faculty members, Dean Williams told the board of governors of the Alumni Council.

Faculty salary increases of 9 per cent annually for several years in the future will be necessary here to "catch up and keep up" with the wage gains of other workers, Dean Williams said.

Four per cent increases are necessary to keep up with rising productivity and the cost of living index, he explained. The remaining 5 per cent would be used to gradually close the 50 per cent gap that has developed during the past two decades.

Moscow and Columbia To Exchange Professors

NEW YORK. — Moscow State University and Columbia University have concluded an agreement for the exchange of professors for one year on an experimental basis, President Grayson Kirk of Columbia announced last month.

This marks the first arrangement for the exchange of scholars of professorial rank between Russian and American universities, although an exchange of students between Russian and United States institutions of higher learning is now in its second year.

Dr. Kirk last year extended an invitation to Academician I. G. Petrovskii, rector of Moscow University, and

his professorial colleagues to visit Columbia in accord with the joint cultural exchange sponsored by the U.S. Department of State.

The agreement provides for the exchange of not more than five professors. Their term would be for one semester.

Says N.D.E.A. Fails Engineering Technicians

UNIVERSITY PARK, PA. — While the National Defense Education Act of 1958 will have a far-reaching effect on higher education in this country, it falls short of helping to provide the trained personnel needed in the critical field of engineering.

This opinion was expressed last month before the engineering division of the American Association of Land-Grant Colleges and State Universities by Kenneth L. Holderman, coordinator for commonwealth campuses at Pennsylvania State University.

Mr. Holderman said the legislation will not help in the training of engineering technicians, a program that must be offered at college level but that does not completely meet the requirements of the first two years of a curriculum leading to a bachelor's degree.

The act is limited to programs leading to the bachelor's degree or to an educational program of two years "which is acceptable for full credit toward such a degree."

Only by the enactment of amendments to the act, which was passed as "an emergency measure," can this important piece of legislation assist in the development of a sounder system of engineering education "at the several different levels, all of which are needed to support our defense requirements and our growing national economy," Mr. Holderman declared.

"Catch-Up" Program for January Freshmen

CLEVELAND. — High school students graduating in January will have a chance to catch up with last June's graduating class through a program at Case Institute of Technology, according to David Owen, director of admissions. Qualified students will be admitted to classes at the start of the second semester on February 1. They will complete the first half of their freshman year by June.

Through special summer school courses they can complete the second half and begin school in the fall of 1960 on a level with the students who entered a year earlier.

The "catch-up" freshmen will be given the regular freshman curriculum of chemistry, physics, mathematics, social studies, English composition, and graphics. They will also have the same opportunity to participate in varsity sports in their sophomore year as those of students who entered in the fall of 1959.

Enrollments and Fees Up in Chicago Area

CHICAGO. — Reports received from colleges and universities in the Chicago area indicate that most institutions are reporting increased enrollments and are boosting tuition fees.

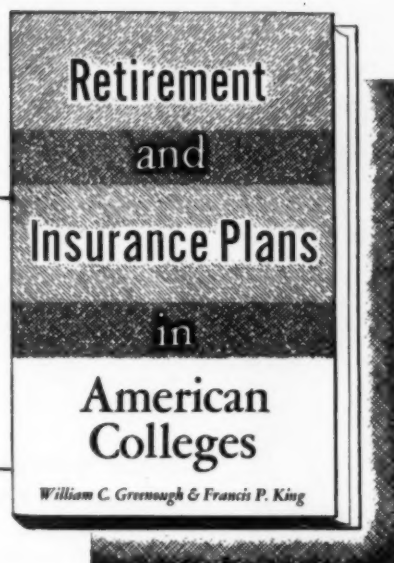
Only three of nine institutions in the Chicago area, as sampled by the *Chicago Sun-Times*, reported no change in tuition fees. These were St. Xavier, Mundelein, and the undergraduate division of the University of Illinois.

The biggest increase in tuition was reported by Northwestern University, from \$840 to \$1005. Ten years ago the tuition at Northwestern was \$480.

Tuition at Loyola University increased from \$660 to \$760; at the

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University of Chicago, it increased from \$900 to \$960.

Roosevelt University's increase was slight, from \$540 to \$585; DePaul's went from \$576 to \$624, and the Illinois Institute of Technology, from \$730 to \$780. Of the nine, only the Illinois Institute of Technology reported an enrollment level approximately the same as in 1958.

Compares Math Courses in U.S.S.R. and U.S.

ANN ARBOR, MICH. — More Russian students take secondary school mathe-

matics than Americans. In general, they spend more time in class studying advanced mathematical disciplines and tend to cover these fields in greater depth than do most students in the United States.

On the other hand, the best American high school programs in mathematics surpass the standard Soviet program. The U.S. is ahead of Russia in modernizing its mathematics courses and has done a better job of developing different types of mathematics programs for its students.

This is the balance sheet drawn by

Bruce Vogeli, University of Michigan graduate student from Alliance, Ohio. In a doctoral dissertation just accepted by the university, he has completed one of the most thorough analyses of Soviet source materials for secondary school mathematics ever made in this country.

In terms of scope, thoroughness, and over-all quality, Mr. Vogeli believes the standard Soviet secondary mathematics program is better than the average American high school program but inferior to many of the better programs in this country. In addition, he asserts: "The Soviet program certainly is less rigorous than the secondary school mathematics programs of several European countries."

Soviet achievements in the field of mathematics education are by no means as great as some critics of American education contend, he adds. For example, in 1956, a new geometry book prepared for use in Grades 6, 7 and 8 was introduced throughout the Soviet Union. Although supposedly tested thoroughly before adoption, the text proved unsuccessful, especially at the eighth grade level.

Cornell Women's Grades Outrank the Men's

ITHACA, N.Y. — Students at Cornell University are smarter than they used to be. A study of the average ranks of undergraduate students at Cornell, made by the registrar's office, reveals that last year the average for the entire student body was 77.07, as compared to 75.21 two decades before.

The same study showed that, as usual, women did better in their studies than men. The women averaged 79.36 last year, as compared to a 76.34 average for men students. Back 20 years ago, the women were averaging 77.81, while the men were averaging 74.48.

Fraternity men scored a bit below nonfraternity members last year, but showed an improvement over previous years. Sorority women averaged a bit above nonsorority members.

Former Board Member Gives \$50,000 to College

BRONXVILLE, N.Y. — A gift of \$50,000, made last June to Sarah Lawrence College by Mrs. William S. Ladd, former member of the board of trustees, was announced by Harrison Tweed, president of the college. It



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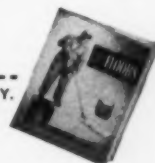
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interiors from new University of Miami dormitory for women by Robert M. Little, A.I.A.; decorator, Betty Lou Merriam of Haygood Laster; all upholstered and wood furniture by Selig.

will be distributed at the rate of \$10,000 a year. The money will increase by 4 per cent the salaries of 30 teachers who joined the Sarah Lawrence faculty before 1947.

Stanford To Open Campus in Italy

STANFORD, CALIF. — The Villa San Paolo, a handsome residential hotel in suburban Florence, will be Stanford University's new Italian campus, President Wallace Sterling has announced.

The trustees approved a recommendation for a three-year contract between Stanford and the villa owners, the Catholic teaching Order of Barnabiti, which also operates an adjacent boys' school.

The villa, in the terraced Tuscan hills, will have a capacity of 90 students. It overlooks the city of Florence and neighboring Fiesole. The campus is a 12 minute ride from downtown Florence on any of three bus lines.

Enrollment of the "founding" group of Florence students will take place during the coming academic year. Classes start next September. Thus the Florence school year will differ from the university's first overseas campus, founded at Beutelsbach near Stuttgart, Germany, in June 1958. It will run in six-month terms, from September to March and from March to September. The German campus operates from June to December and from January to June. By December this year, Beutelsbach will have accepted more than 240 students.

Gifts totaling \$11,500 have already been received by Stanford to help found the Florence campus.

Prerequisite for Villa San Paolo is a year's course in Latin or a Romance language. Stanford professors, native instructors in Italian, and a resident director will make up the faculty.

Like the German center, Florence will observe a regular class schedule Monday through Thursday, with a long week end to allow for tours to other Italian and European points.

Changes Academic Advising System

BOULDER, COLO. — The University of Colorado changed its system of academic advising for freshmen this semester, and the procedure appears to be working out successfully.

Major changes in the system involve giving advance information to stu-

dents, making additional records available to advisers, providing greater privacy in advisory sessions, and compensating faculty advisers for their time.

Previously in the office of student counseling, the academic advising is now being conducted under the direction of the office of the dean of the college of arts and sciences.

Dr. Glenn Terrell, on leave as chairman of the department of psychology, was asked last summer to set up a new academic advising system. The changed procedures will be evaluated from time to time.

This is the first year the new students knew ahead of time something of what advising is, the names of their individual advisers, the time and places of their first appointments.

Also for the first time, the faculty advisers conducted interviews in their own offices prior to registration, and received in advance a folder for each student. In it were a transcript of his high school record, personality ratings, scores of aptitude and placement tests, and a memorandum sheet for noting pertinent information from interviews.

Stevens Laboratory Cited for Counseling Service

HOBOKEN, N.J. — An award for 15 years of counseling service to World War II and Korean veterans was presented to the Stevens Institute Laboratory of Psychological Studies by the New Jersey Veterans Administration at a luncheon in October.

The laboratory, which was founded in 1945 under a contract with the Veterans Administration, has counseled and guided more than 43,000 veterans from the Middle Atlantic states toward their educational and professional objectives.

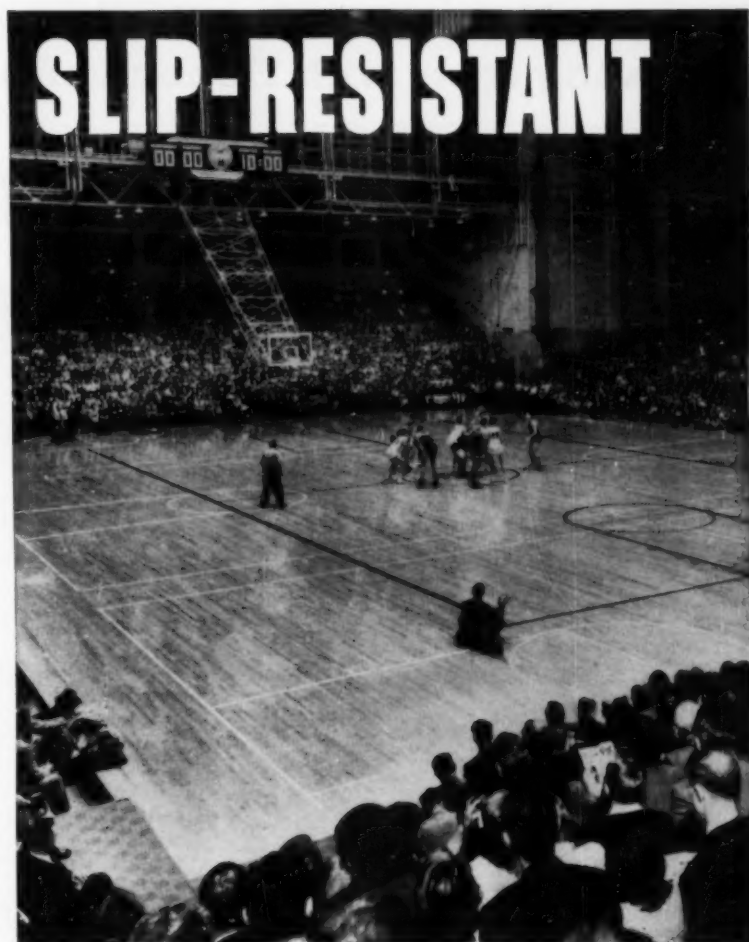
The award was presented in the form of a citation to Dr. Frederick J. Gaudet, laboratory director.

90 per Cent of Union's Students Had Summer Jobs

SCHENECTADY, N.Y. — Exactly 90 per cent of Union College's undergraduate students were gainfully employed last summer, according to a survey completed by the public relations office.

Conducted during the registration period, the survey reached 1112 of the 1134 daytime undergraduates and

(Continued on Page 68)



For slip-resistant floors, choose Seal-O-San!

Good basketball calls for fast footwork . . . and a player's footwork can be no better than the floor permits. A Seal-O-San finished gym floor provides good footing because the seal is resilient. The surface gives a little so the shoe sole holds its position, doesn't skid or slip. Footing is sure, so action becomes smooth and fast.

Seal-O-San gym floor finish offers the primary advantage of slip resistance, plus durability, light color, easy application, simple maintenance and protection for long floor life. Ask your Huntington representative, the Man Behind the Drum, for more information about Seal-O-San gym floor finish. Write today!

Get your copy of the new Coaches Digest. Free to coaches and athletic directors . . . please write on your school letterhead. Others send 50¢ handling fee.



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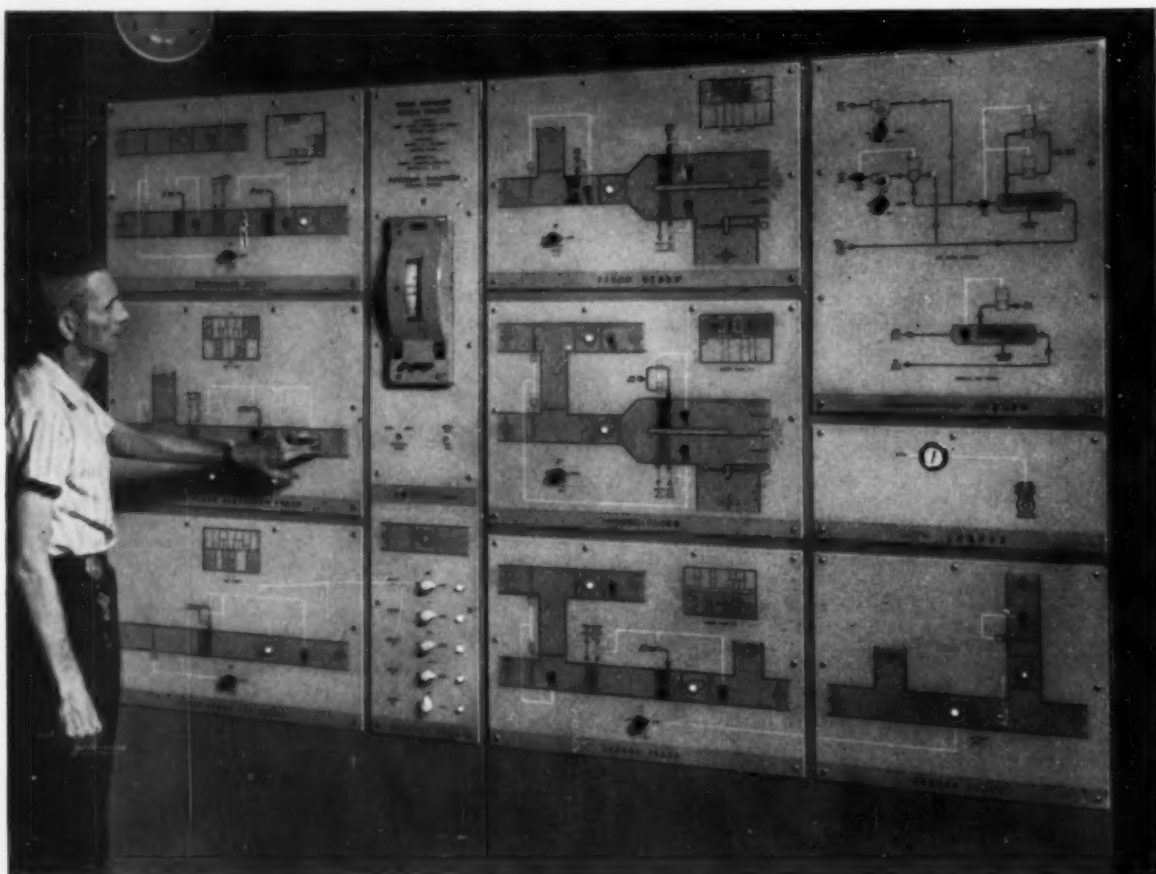
HUNTINGTON LABORATORIES • HUNTINGTON, INDIANA

Philadelphia 35, Pennsylvania • In Canada: Toronto 2, Ontario

For additional information, use postcard facing Cover 3.

Furman University drastically reduces
operating costs with Honeywell's

Centralized



This Honeywell Supervisory DataCenter controls the entire air conditioning system for the Science Building at Furman University. Other Supervisory DataCenters control the dormitory quadrangle and dining hall.



This is one of the classrooms equipped with individual Honeywell *wall-mounted* thermostats. By adjusting room temperatures when necessary, students and faculty enjoy greater comfort, increased efficiency. Temperatures in these rooms can be checked from the Honeywell SDC.

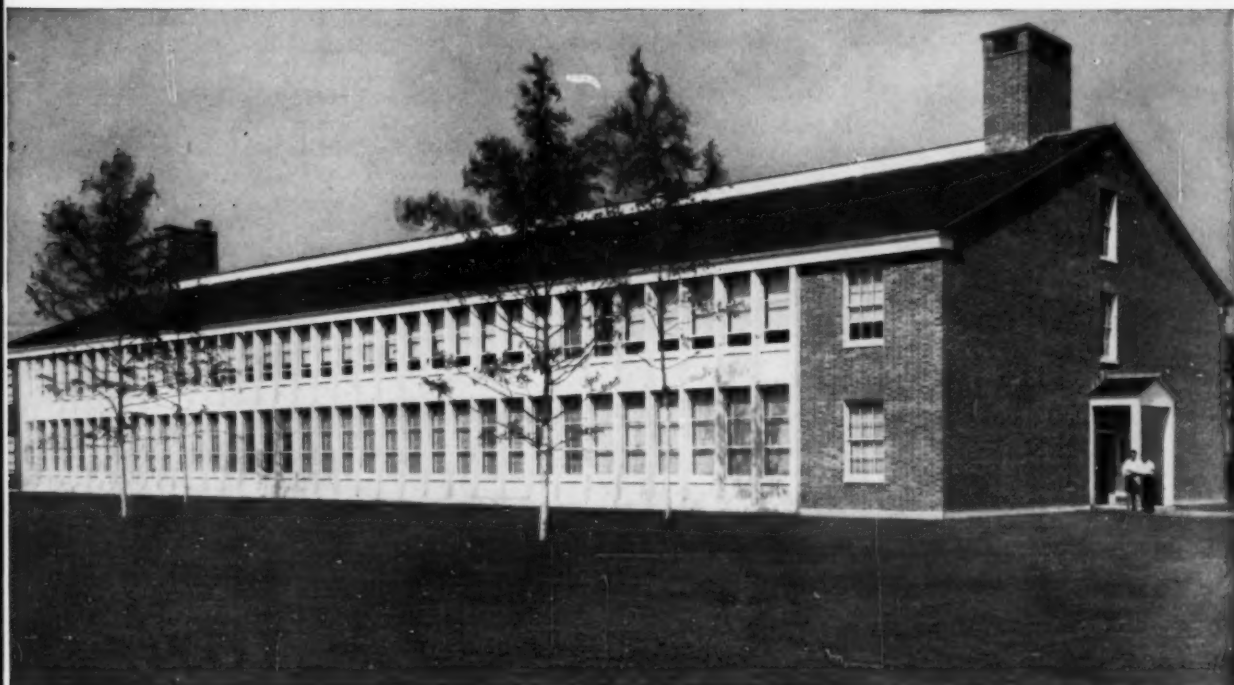


Shown here is a front view of Geer and Manly Halls—part of the four-building quadrangle that houses more than 500 students. Two Honeywell Supervisory DataCenters assure the best possible control over the entire heating and air conditioning systems in all four buildings.



Furman's spacious new dining hall is truly a tribute to fine architectural planning. A single Supervisory DataCenter enables the operator to control and investigate the functioning of all heating and cooling units within the building from one central location.

Climate Control



Science Building, Furman University, Greenville, S. C. Architect: Perry, Shaw, Hepburn and Dean. Engineer: Buerkel and Company, Inc. Contractor: Daniel Construction Co.

By installing 4 Honeywell Supervisory Data Centers, Furman University saves thousands of important operational dollars yearly.

All the heating and cooling in the Science Building above—as well as in four other key buildings—is controlled and checked by four Honeywell Supervisory DataCenters. Mr. Carl Clawson, Chief Engineer at Furman, states that "savings in time, labor and material more than justified installation of the DataCenters."

From four centrally-located positions, a Furman engineer can quickly and easily adjust, or start and stop, the exhaust fans, hot water converter and multi-zone unit pumps for all five buildings—thus saving much valuable time and effort.

All temperatures in each building are indicated at their respective panels—including zone spaces, water and supply air. Pilot lights show when machinery is in operation.

Checks and adjustments of heating and cooling equipment and space temperatures, must be made whether or not

your college has a central control panel or panels. But *with* a central panel, they can be done more accurately, quickly and efficiently—reducing "on" time of refrigeration equipment, and saving your school important operational dollars. Easier to operate, the Honeywell panel requires only part time attention from an operator.

While Furman University chose to control the air conditioning in five buildings, a lesser number of DataCenters may be adequate for *your* needs. In fact, one DataCenter can sometimes control an entire group of buildings.

For more information about this efficient, money-saving way to control a building's climate, call your local Honeywell office. Or write: Minneapolis-Honeywell, Dept. CB-12-140, Minneapolis 8, Minnesota.

Honeywell



First in Control

(Continued From Page 65)

showed that 1002 of these held some form of remunerative employment.

Most predominant, if not most popular, was unskilled or heavy labor, which occupied the time of 144 students. Other major occupational areas were: clerical work, including general office work, stock clerks, messengers, file clerks, office machine operators, 142; junior engineering or research work, 140; resorts, country clubs, amusement parks, and similar summer installations, exclusive of food handlers and kitchen helpers, 125; food

handlers and kitchen helpers, 88; skilled and semiskilled labor, 77; sales and promotional work, including store clerks, 70; and buildings and grounds work, including general maintenance, gardening, house painting, and elevator operating, 60.

Among the unusual jobs reported were: guide in a wine cellar; good-will ambassador to the Netherlands; overseas work camps (sponsored primarily by religious organizations); undertaker's assistant; deputy sheriff; minister for the Salvation Army; yacht captain; crewman on the S.S. *United*

States, and first mate aboard a 136 foot training schooner.

I.C.F.A.'s 40 State Associations Open Fall Campaigns

NEW YORK. — One of the most comprehensive plans to raise funds for support of higher education began in November when 40 state associations, representing 477 private colleges, began campaigns in nearly every state in the nation.

A total of \$7,934,659 was contributed in 1958 to the 40 state associations by 7632 corporations and businesses. It is anticipated there will be a substantial increase over this figure as a result of the 1959 campaigns.

The Independent College Funds of America, the national office that serves as a coordinating center and clearinghouse for the 40 state associations, announced several fall campaigns getting under way throughout the country as examples of state association activities.

In Des Moines, Iowa, nearly 400 industrialists and college officials attended a dinner opening the Iowa College Foundation campaign for 19 private colleges in Iowa. The main speaker was Edmond M. Cook of Deere & Company, manufacturers of farm implements, who called the state association movement for support of the private liberal arts colleges "one of the truly outstanding innovations of the last decade."

The Iowa College Foundation presented its annual "Plaque of Honor" to the Standard Oil Foundation, Inc. The Standard Oil Company (Indiana) contributes \$175,000 to the associations located in Iowa and 13 other Midwest states.

The Associated Colleges of Illinois campaign was launched in October in Chicago when 30 teams of college presidents and trustees made calls on 150 corporation presidents and board chairmen on behalf of the 24 private colleges in the Illinois association.

The Empire State Foundation of Independent Liberal Arts Colleges, representing 23 colleges, started solicitation of firms in New York City on October 7. Upstate campaigns were held in Buffalo, Rochester, Syracuse, Albany, Schenectady, Utica-Rome, the Finger Lakes Region, Binghamton, Jamestown, the Mid-Hudson region, and the "North Country."

(Continued on Page 70)



PRIVATE FUNDS FOR PUBLIC INSTITUTIONS

State and municipally supported institutions are supplementing tax support and other income with voluntary gifts. More than six years ago the American City Bureau began developing new methods of providing private funds for public institutions. Over ten such services have been completed.

For example, Bureau services were recently started for:

Montana State College—

A development program

Ball State Teachers College—

Campaign for an auditorium

University of Maryland—

An objective study to evaluate and improve fund-raising processes.

If you will contact us, we shall be pleased to arrange an exploratory meeting and submit a proposal or recommendation.

American City Bureau

(Established 1913)

3520 Prudential Plaza, Chicago 1, Illinois
New York & West Coast Representatives

FOUNDING MEMBER AMERICAN ASSOCIATION OF FUND-RAISING COUNSEL



THE EGG AND YOU...

New exclusive SCORE* and EVENT* control wash pressure *chemically*, improve results, increase dishwashing machine efficiency!

★ ★ ★

Recently Economics Laboratory chemists discovered that aeration and foaming inside a dishwashing machine cut down wash pressure 40 to 50 per cent. This drop in wash pressure reduces machine efficiency—promotes staining and film build-up and increases compound consumption.

Economics Laboratory chemists also discovered that proteins such as eggs, meats, mashed potatoes and milk

are the major cause of aeration and foaming. Fats were commonly thought to be the major cause. As a result of these discoveries two new exclusive products SCORE and EVENT were developed. *Now for the first time* foam and aeration can be eliminated in a mechanical dishwashing machine throughout the entire washing period.

SCORE and EVENT control wash pressure chemically—they step up the efficiency of all mechanical dishwashing equipment—resulting in film-free tableware, lower operating costs in detergents and hot water. SCORE and EVENT have been scientifically developed and thoroughly tested by experts in the Laboratory and in hundreds of dishwashing operations throughout the country.

FREE! Write for a new informative booklet, "A Chemical Approach To Controlled Wash Pressure".

Economics Laboratory, Inc.
250 Park Avenue, New York 17, N. Y.

CUB-129

Gentlemen:

I would like the new booklet, "A Chemical Approach To Controlled Wash Pressure".

Name _____

Name of Establishment _____

Address _____

City _____

State _____



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HOBART'S NEW 30-QT. MIXER

CUSTOMER-
DESIGNED
with
CONVENIENCE
CONTROLS



Model D-300

**ONLY HOBART
OFFERS ALL
THESE FEATURES:**

- ★ *Positive drive*
- ★ *Positive speeds*
- ★ *Positive Hobart planetary action*
- ★ *Clean-lined...completely sealed
for utmost sanitation*

From Hobart motor to bowl, this all-new mixer has been compactly designed to give you more efficient, easier operation. Exclusive ventilation system (no louvers or vent openings) keeps the ½ h.p. Hobart built motor cool while locking out dirt and ingredient dust. Feather-touch, spring-counterbalanced bowl lift, locks firmly and automatically in operating position.

Optional equipment available are complete 20-quart equipment, timed mixing control, thermal overload and low-voltage protection, and magnetic-type starter. There's a full line of attachments for the standard No. 12 attachment hub...plus a *tray support* for added food preparation convenience, and a *bowl truck* (both optional). The Hobart Manufacturing Company, Dept. 301, Troy, Ohio.

The Most Complete Line with Nationwide Sales and Service

Hobart MACHINES



World's Oldest and Largest Manufacturer of Computing Scales and Food Store, Bakery, Kitchen and Dishwashing Machines.

BETTER BUY MIXERS...

BETTER BUILT BY HOBART

(Continued From Page 68)

Alfred Driscoll, president of the Warner-Lambert Pharmaceutical Company and former governor of New Jersey, was recently appointed chairman of the business and industry committee of the New Jersey College Fund Association. Under his direction the presidents of the 11 private colleges in the Fund made calls this fall on nearly 500 companies doing business in New Jersey.

Campaigns on behalf of the Ohio Foundation of Independent Colleges were held during November in eight major cities: Akron, Canton, Cincinnati, Cleveland, Columbus, Dayton, Toledo and Youngstown. The Ohio Foundation, representing 29 colleges, will aim to surpass their record breaking total of \$906,000 contributed during the past fiscal year.

An interesting sidelight to the Ohio Fund Campaign is a series of alumni fund raising campaigns being held in Akron, Cincinnati, Dayton and Toledo. Paralleling the Foundation campaign to raise funds from industry, the alumni will solicit contributions from the graduates of the 24 Ohio colleges who live in the four cities. The experiment was tried last year for the first time in Akron and Toledo and all records were shattered when 100 per cent of the alumni made contributions to their colleges.

The state association movement was launched in Indiana in 1948. Since that time 38 other states and regions have come into the movement. The most recently formed association is the Intermountain Colleges Association founded in 1958 which covers Arizona, Idaho, Nevada, New Mexico, Utah and Wyoming.

Many Colleges Silent on Fraternity Discrimination

ANN ARBOR, MICH. — Throughout the nation official college attitudes on discrimination in fraternities and sororities range "from indifference, to slight concern, to condemnation," according to a recent study made by the University of Michigan's student government council.

These conclusions are based on a survey of 63 campuses:

Thirteen colleges reported no written or unwritten discriminatory practices by fraternities or sororities on the campus, while 50 said that one or more groups had discriminatory policies. Twenty-five of the 50 said

that the fraternities or sororities in question were in the minority.

Eight colleges reported major incidents of discrimination. One eastern college said that two fraternities were suspended by their national organization but are still operating successfully as locals.

Another chapter was denied certain privileges by its college when it failed to remove its bias clause. When the chapter voted to remove the clause, it was suspended by the national organization. It then became a local fraternity.

Thirty of the colleges that reported the existence of discrimination said they were doing nothing about it. A dean at a southern university said that social fraternities are "private clubs and, as such, privileged to select their own membership."

Twenty-three colleges reported measures countering discrimination. "However," the report continued, "there is a wide divergence of opinion as to what a 'measure' is." Examples include policy statements from deans or presidents, and handbooks as evidence of opposition to discrimination. Several colleges have committees "to eliminate discrimination."

Student Behavior Good, Cornell Study Shows

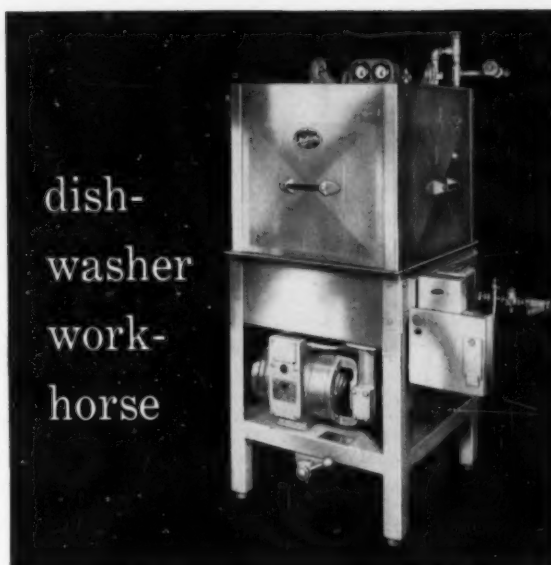
Ithaca, N.Y. — College students, as a group, are extremely well behaved, a study of disciplinary action involving undergraduates at Cornell University during a six-year period indicates.

In an average year there were 26 student violations of nonacademic rules per thousand undergraduates, Hadley DePuy, assistant dean of men, found. Most of these were traffic violations or the results of student pranks.

The study also confirms a widely held belief that women are less likely to break rules in college than men. While 26 men per thousand found themselves disciplined for breaking the rules, the average among women was only 18.

Kenyon College to Increase Tuition

Gambier, Ohio. — Effective with the beginning of the academic year 1960-61, Kenyon College will increase tuition \$150 in both its undergraduate and seminary departments. This will bring yearly tuition at the college to



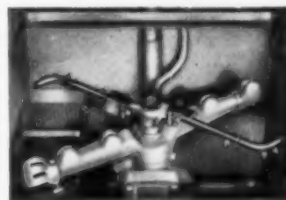
...in just two feet

Crowded kitchen? A model from the Hobart AM Series makes any straight-through or corner installation a high-capacity dishwashing center—with just two feet of machine space between tables.

Hobart's exclusive power wash and above-and-below rinse give you today's finest wash-rinse system for quality results at lowest labor costs.

Electric timed control or semi-automatic models available...they reduce operator supervision...and assure maximum washing and rinsing efficiency. The Hobart Manufacturing Co., Dept. 301, Troy, Ohio.

Hobart Revolving Wash and Rinse Principle. All AM Series dishwashers incorporate this feature that assures thorough coverage of the entire rack area. Door interlocking device prevents opening doors during wash and rinse.



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Hobart MACHINES

The World's Oldest and Largest Manufacturer of Food, Bakery, Kitchen and Dishwashing Machines

BETTER BUY DISHWASHERS...

BETTER BUILT BY HOBART

\$1200 and at Bexley Hall, the divinity school, to \$550.

"The increase," reports President F. Edward Lund, "will be used to sustain and improve faculty and staff salaries and to reduce operating deficits."

Advertisement Promotes Town-Gown Relations

JACKSONVILLE, ILL. — The development committee of the board of trustees of MacMurray College conceived the idea that in order to promote understanding, to widen the base of support, and to provide a liaison be-

tween the people of its community and the college, it would be a good idea to present a report to the people of Jacksonville, the community in which the college is located.

All departments of the college having to do with the general public were asked to submit material for the use of this advertisement. The business office submitted statements of budget, expenditure, income and so forth. The admissions department submitted records of enrollment for the past few years. The statement of philosophy was taken from the View Book.

The reason this material was taken from a number of sources was so that the same story of the college that has been told in several ways could be consolidated into one visible piece. The material was submitted to a professional advertising company in Chicago and a newspaper advertisement appeared on October 4, after which 10,000 reprints were made for transmittal to the alumnae of the college plus special publics. A result of this advertisement was a heightened awareness of the problems of the college, its successes in certain fields, and, especially, a new kind of empathy from the community.

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\$1445.



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All-Transistor
TV Camera puts
Instructional TV
within your
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PHILCO Government & Industrial Division
4702 Wissahickon Avenue, Phila. 44, Penna.
In Canada: Philco Corp. of Canada, Ltd.
Don Mills, Ontario



\$50,000 Grant for Future Women College Teachers

NORTHAMPTON, MASS. — President Thomas C. Mendenhall of Smith College announced that the college has received a grant of \$50,000 from the Danforth Foundation for graduate fellowships for young women preparing themselves for a career of college teaching.

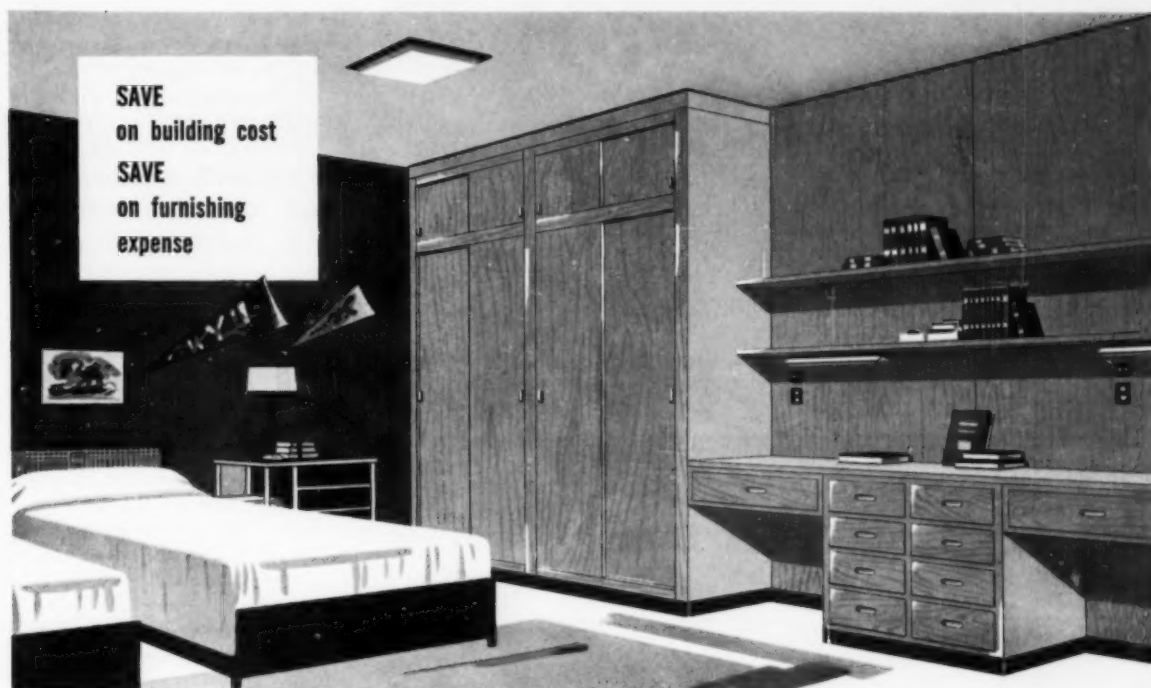
The fellowships may be given either to Smith alumnae doing graduate study in other institutions or to women enrolled in advanced study at Smith. They are to be awarded without bar of race, color or creed, and are designed to be fully used between September 1960 and June 1965.

\$1.2 Million Bequest by Former Trustee

ALFRED, N.Y. — Alfred University will receive a bequest of approximately \$1.2 million under terms of the will of the late Florence Hatch of New York City, President M. Ellis Drake announced. The bequest is the largest ever received in the history of the institution.

Miss Hatch was elected a trustee of the university in 1924, filling a post vacated by the death of her father, a former supreme court justice of New York State. Under the terms of the bequest, Miss Hatch named Alfred University to receive the principal of a trust fund that was established for her by her father and made the institution the residuary legatee of her own estate. The will provides that the funds shall be "added to the general endowment of the university and be known as the Hatch Fund."

Income from the Hatch Fund will add an estimated \$40,000 to \$50,000



MORE USABLE SPACE in every dorm room with **MENGEL built-in CLOSET WALLS**

With Mengel modular built-in closet walls and accessories you get more room space . . . more storage space . . . all at a minimum cost.

These handsome units utilize every inch of closet space and cost far less than comparable furniture. Built-in closets, desks, chests and vanities may be combined to make a functional, attractive closet wall. They can be used to replace an entire inside non-load-bearing wall.

Mengel closet walls and accessories are shipped knocked down in individual cartons for quick, easy and inexpensive assembly. They are available in widths of 2', 3', 4', 5', and 6' and are 91½ inches high for simple, tilt-up installation. Frames are of hardwood with choice of Gum, Birch, or Oak plywood exteriors. All units are fine sanded ready for finishing. Inquire about factory pre-finishing.

- More usable space per square foot of closet space.
- Cost less than conventional plaster or dry wall closets.
- Equipped with clothes rods, adjustable shelves, drawers, and divider partitions, as desired.
- Warp-free doors with steel channels on vertical edges and four point suspension. Also equipped with exclusive adjustable hangers.

FREE BROCHURE . . . MAIL THIS COUPON NOW!



Space Saver
MENGEL....
Closet Walls

The Mengel Company
814 West 25th Street, Winston-Salem, N. C.

Gentlemen: Please rush full details about Mengel Closet Walls.

Name

Firm

Street

City State



a year to the university's endowment income, President Drake said.

Stevens Institute and Church Exchange Property

HOBOKEN, N.J. — A property exchange between the First Presbyterian Church of Hoboken and Stevens Institute of Technology will enable the church to increase its service programs and the college to further its building program, the two organizations announced jointly.

The church is exchanging its property at the corner of 6th and Hudson

Streets and \$40,000 in return for the old Stevens Engineering Camp in Johnsonburg, N.J. As a result, Stevens will own the entire 200 foot block.

The Presbyterians acquire a 340 acre camp site, including a lake and several buildings. Stevens purchased the camp in 1930 and used it as part of its civil engineering program until 1954, when the activities were transferred to the expanding Castle Point campus.

The present old church building will continue to be used by the congregation until a new church center is

ready for use. When the congregation moves to its new home, Stevens will demolish the building and include the property as part of its over-all development program.

Prep School Has Unique Cooperative Plan With Colgate-Palmolive Co.

NEW BRUNSWICK, N.J. — At a time when schools across the nation are experiencing financial difficulties, a pioneering type of agreement between the Colgate-Palmolive Company and the Rutgers Preparatory School points the way to a possible new approach to these problems.

Colgate-Palmolive and the 191 year old institution have worked out a long-term lease under which a building has been constructed on the school's Elm Farm Campus at New Brunswick. The structure will serve now as a laboratory facility for Colgate-Palmolive's biological research laboratories and in the future as a classroom-laboratory unit for uppergrade students of the prep school.

Present plans call for the biological research group to move to the company's projected multimillion dollar research center when it is completed in early 1962 on a site adjacent to Rutgers' science campus. The building will be turned over to the prep school at that time.

Dr. John R. Brown Jr., Colgate-Palmolive vice president for research and development, pointed out that the leasing arrangement gives the biological scientists a custom designed laboratory facility to meet the company's needs for basic research in the next few years.

At the same time, he said, the future requirements of the Rutgers Preparatory School have been considered so the building can be converted into a teaching installation at only a fraction of what it would cost the school to erect a similar installation.

Cornell's Library Fund Reaches \$4.9 Million

ITHACA, N.Y. — The James Foundation of New York has made a grant of \$100,000 to Cornell University, to be used toward the cost of a new research library, President Deane W. Malott announces.

The grant brings the total amount subscribed for the new library building by alumni, corporations, founda-

LOOK AT THE FACTS!




- 1** In the washrooms of many colleges and universities Mosinee Turn-Towels, compared to the service previously used, have reduced the cost of towel service from 25% to 50%.
- 2** In a 16-day test, an Eastern university found that the janitorial expense in connection with towel service was reduced 65% when controlled type Turn-Towels were in use.
- 3** Quality of service goes up as costs go down because Turn-Towels have faster absorbency than any towel on the American market.

Write for name of your nearest distributor

BAY WEST PAPER CO.

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Subsidiary of Mosinee Paper Mills Co.*



YOUR local metal fabricators build these aluminum railings from Blumcraft materials. Competitive bidding is thus provided for public and private work. Blumcraft general catalogue M-60, containing the Deluxe line and also low-cost Tube-Line, is available to Architects; or consult Sweets file 6e/Blu.

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O F P I T T S B U R G H

460 MELWOOD STREET PGH. 13, PA. • PERMANENT DISPLAY 101 PARK AVE., N.Y.



The Insured **TUITION PAYMENT PLAN**

This is the prepayment plan that brings the parent low-cost life and disability insurance protection, plus a monthly budget provision that extends to the final month of his educational expenses four or more years hence. Used today in many of the best-known colleges and preparatory schools, it has proven most valuable to administrative officers by providing them with a dignified, parent-approved method which:

- 1 alerts parents to their financial obligation when the student is accepted for admission;
- 2 offers parents a convenient and logical plan for meeting that obligation;
- 3 assures the parent (and thus the college) that he will have adequate funds with which to meet his college obligations in full and on time;
- 4 preserves the traditional relationship between the college and the parent—debt-free and direct.

Individualized descriptive literature for mailing to the parents of incoming students is furnished for each preparatory school, college or university.

WRITE TODAY FOR DETAILS

We should like to know more about the Insured Tuition Payment Plan as it would apply to the students at:

Name of School or College _____

Address _____
Please contact: _____

Name _____

Title _____

INSURED TUITION PAYMENT PLAN
RICHARD C. KNIGHT
112 WATER STREET
BOSTON 9, MASSACHUSETTS

tions and others to \$4.9 million. Total cost of the new library is estimated at approximately \$5.6 million.

The building, under construction, is expected to be completed late in 1960. It is adjacent to the present university library, which will serve the needs of undergraduates. Approximately half of Cornell's 2 million volumes will be housed in the new structure.

Hofstra College Gets FM Radio Station

HEMPSTEAD, N.Y. — WVHC, the voice of Hofstra College, has been granted an educational FM license by the Federal Communications Commission.

Formerly WHCH on the AM dial, the new FM station operates on a 10 watt power system at 88.7 megacycles and can be heard in a 15 mile radius from the Hempstead campus. Previous broadcasts could be heard on the campus only.

The student operated station launched its programing in late September with the college's annual induction ceremony, when President John Cranford Adams officially opened Hofstra's 25th year.

From Radio France, the station will receive a program of instruction in conversational French as well as a French musical show. Other contributors will include the United Nations, Veterans Administration, and The Netherlands Information Service.

Among the initial programs originating with the Hofstra station will be: Bookmark, a reading of novels by talented readers; Long Island Concert, a program featuring local musicians, and Opera Hour, a scripted program of famous operas and the stories behind them. Future plans call for a series of round-table discussions by community leaders.

Ford Gives \$19 Million for Science, Engineering

WASHINGTON, D.C. — The Ford Foundation has announced the first major grants in its new program in science and engineering. They total \$19,050,000 and will go to 10 institutions in the United States. The grants are aimed at the advancement of engineering education.

The recipients are Massachusetts Institute of Technology, \$9,275,000; California Institute of Technology, \$3,200,000; Carnegie Institute of

Technology, \$2,250,000; University of California (Los Angeles), \$1,200,000; University of Michigan, \$1,175,000; Case Institute of Technology, \$1,000,000; University of Illinois, \$275,000; Purdue University, \$275,000; Stanford University, \$200,000; University of Wisconsin, \$200,000.

Henry T. Heald, president of the foundation, announced the program in an address here before the annual meeting of the American Institute of Consulting Engineers.

"In the last two decades, a revolution has been under way in the practice of engineering," he said. "Yet engineering education — the gateway to professional practice — has lagged behind.

"In a hopeless race against time and reality, most engineering students in their late teens and early twenties are being equipped for the engineering of the last half of the Twentieth Century by being indoctrinated with the art and practice of the 1950's."

He urged that engineering education impart "a thorough understanding of science and mathematics, their frontiers, and how they may be applied to the needs of mankind."

The foundation's grants in engineering education, Mr. Heald said, have two objectives: (1) to support promising plans for development of and experimentation with imaginative educational programs, and (2) to help develop and further excellence on engineering faculties, both by additional training of present faculties and by recruiting and development of increased numbers of well trained engineering teachers.

2500 Penn State Students Seek Part-Time Work

UNIVERSITY PARK, PA. — More students at Pennsylvania State University are seeking part-time employment this year. Most of them need to work to remain in college.

Virginia Gordon, head of the student employment service, has on file nearly 2500 applications of students seeking part-time work. Many are married, and some have children.

Most of the requests coming into the student employment service are for baby sitters.

"Many of these can be filled by young men; they are well qualified for the job because they have babies of their own at home," Mrs. Gordon ex-

Consider these 3 facts about future classroom air conditioning

1

YOU CAN INSTALL HerNel-COOL II UNITS NOW AT LITTLE OR NO EXTRA COST.

2

YOU CAN SWITCH OVER TO YEAR-ROUND AIR CONDITIONING AT ANY TIME IN THE FUTURE.

3

... AND WHEN YOU DO, YOU'LL SAVE 60% TO 72% OF THE AIR CONDITIONING COST!

HerNel-COOL II units can be installed in your new building now to function as unit ventilators—heating, ventilating and providing fresh-air (outdoor) cooling when required. But the piping, pipe insulation, condensate drainage system and control system installed as a part of the HerNel-COOL II system are *sized and engineered for air conditioning!* And the cost for all this versatile equipment is in the *same range* as equipment *not* adaptable to air conditioning!

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The service also handles many requests for clerical personnel and various types of technicians, some of them requiring skilled workers.

Bucknell Increases Fringe Benefits

LEWISBURG, PA. — Fringe benefits totaling more than \$300,000 will be available for members of Bucknell University's faculty, administration and general staff during the current

academic year, according to President Merle M. Odgers.

Of this amount, President Odgers reported, nearly \$138,000 is earmarked for social security, pension and retirement allowances, while the remainder has been allocated in the form of group insurance, research grants, travel allowance, tuition credits to employees and their dependents, sabbatical and study leaves for members of the faculty, recreation and entertainment.

While vacation and other holiday allowances are paid to those in non-

professional positions, similar benefits granted to members of the administration and faculty are not considered "fringe" benefits in most educational institutions. If they were, an additional \$100,000 would have to be added to the foregoing total.

"Bucknell University also offers benefits not found in any other field," President Odgers said. "For example, while many industries pay full or partial tuition for their employees interested in furthering their education, the university goes a step farther and extends the same privilege to members of the employee's family."

John F. Zeller, vice president for business and finance, pointed out that the university's retirement program, begun as far back as 1939, has increased in the last five years by almost 50 per cent. This is partially due to an increase in staff, but it is also the result of the higher amounts which the university is contributing to social security, the retirement program, and group life insurance.

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Rochester Revises Its Tuition Fees

ROCHESTER, N.Y. — To bring income from tuition and fees into a more realistic balance with rising costs, the University of Rochester announced a new schedule of rates that will go into effect in September 1960.

Parents of students have been notified by Dr. Cornelis W. de Kiewiet, president of the university, that beginning next September the tuition for students in the River Campus schools and colleges will be raised from \$1150 to \$1275, and that a separate student health fee of \$25, hitherto included in the tuition charge, will be instituted. Annual charges for room and for linen will be consolidated and the total charge for these services will be increased by approximately \$50.

No increase is now contemplated in the charge for board; however, such charges, since they are based on actual costs, are subject to review, Dr. de Kiewiet said.

A comparable revision of fees has already been announced to students at the school of medicine and dentistry, and a revision of the tuition and fee structure for the Eastman School of Music will be announced in the near future, he said.

To families for whom the new schedule proves unduly burdensome, the university reiterates its traditional

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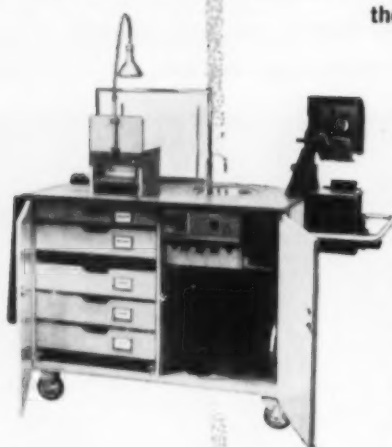
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policy of making available such assistance as may be suitable for individual situations, Dr. de Kiewiet said.

Asks Separate Boards for Carnegie Institute and Carnegie Tech

PITTSBURGH. — The board of trustees of Carnegie Institute of Technology has approved an amendment to the university's charter and authorized a petition to the court of common pleas establishing a board separate and apart from that of Carnegie Institute.

Since the board's inception 36 trustees have served both Carnegie Institute and Carnegie Tech. Eighteen of them have also served as trustees of Carnegie Library of Pittsburgh.

In announcing the move, James M. Bovard stated: "It is the most important step taken since the incorporation of Carnegie Institute of Technology in 1912." Mr. Bovard is both president of the Institute and chairman of Tech's board.

He described the move to create separate trustee organizations as "a beneficial development that would, in the future, enable Carnegie Institute of Technology to have as trustees a larger representation of alumni, national educators, and prominent people from our community interested in education.

"Likewise, Carnegie Institute," Mr. Bovard continued, "can now work toward a board of trustees with appropriate backgrounds in the arts and natural history and offering qualifications more valuable to the purposes of the institute."

He emphasized that there will be no immediate change in the board personnel, but as vacancies occur at the two institutions replacements will gradually build up organizations oriented toward their own special interests and functions.

Major Changes in Mills' Curriculum

OAKLAND, CALIF. — Major curriculum changes were recently announced at Mills College by President C. Easton Rothwell.

In a move to strengthen the liberal arts curriculum, members of the Mills faculty have approved action leading to the termination of courses and degree programs predominantly vocational in character.

As a result of the recent action, the college will, as soon as practicable,

cease to offer the degree of bachelor of science, now available in business studies, medical record library science, and nursing. The only undergraduate degree to be offered will be that of bachelor of arts. Also to be dropped from the curriculum will be the program in occupational therapy. Programs and relevant courses in dietetics, institutional administration, homemaking education, and clothing and textiles will likewise be terminated, and the general field entitled home economics will also be dropped.

Dr. Rothwell emphasized that the dropping of undergraduate work in dietetics and institutional administration would in no way affect the administrative dietetic internship program for which the college has become well known.

The changes will take effect as soon as the college has fulfilled its obligations to students now majoring in these fields, and to the faculty concerned. The changes will also take into consideration cooperative arrangements for nursing education that exist between Mills College and the Highland and Samuel Merritt schools of nursing, and those with Herrick Memorial Hospital of Berkeley for education in medical record library science.

President Rothwell stated that the faculty, by its action, completed the first of three phases in the review and modification of the curriculum. In the second phase, now in progress, a study is being made of areas of the curriculum that need strengthening. In the third phase, to come later, the general organization of the curriculum and the methods of instruction will be studied.

Case Institute Raises Tuition Fees \$200

CLEVELAND. — A tuition increase of \$200 a year, effective with the summer session in 1960, was announced by Kent H. Smith, acting president of Case Institute of Technology.

Case's present tuition is \$1200 a year, including all fees. The new tuition will not include a health service fee. The latter will range from \$15 to \$20 a year.

The major need for the increased tuition, Dr. Smith pointed out, came from the fact that although enrollments for the last two years have been at their postwar peaks, Case ended the 1958-59 fiscal year with a deficit of \$28,000. The deficit this year, not in-



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cluding unforeseen expenses caused by the June 1 flood, may reach \$113,000, with the total including the flood approaching \$250,000. Thus a tuition increase was required to keep Case operating on a sound financial basis.

Tuition now forms half of the operating income of the educational program at Case.

Even with the increase in tuition, Case students will still be only paying about 60 per cent of the cost of their education, Dr. Smith emphasized. However, recent national trends in-

dicate that more of the burden of education is being shifted upon the students who are able to pay a larger fraction of the cost of their education.

\$80 Tuition Increase for Earlham College

RICHMOND, IND. — Parents of Earlham College students have been notified of an \$80 per year tuition increase, effective in the fall of 1960.

The increase will bring total student charges, including room, board, laundry, tuition and fees, to \$1780 per

school year. Tuition charge for the year will be \$930 or \$310 per term, since the college will go on a three-term plan next year.

"Because of gifts from alumni, industry, Quaker meetings, friends of the college, and endowment income it has been possible to keep tuition fees far below the actual cost of the educational program," said Eric G. Curtis, vice president and dean of students. "To help Earlham students work out financial problems, there are increased scholarship and loan resources, along with deferred payment plans and employment possibilities."

Charges for room and board are based upon actual operating cost, with neither profit nor deficit for the college.

DIRECTORY OF ASSOCIATIONS

National Federation of College and University Business Officers Associations

President: Charles H. Wheeler III, University of Richmond; secretary: Kenneth Dick, University of Idaho.

National Federation Consulting Service, 343 S. Dearborn St., Chicago. George E. Van Dyke, executive director.

Assembly: July 6-8, French Lick, Ind.

National Association of Educational Buyers

President: Carl A. Donaldson, University of Nebraska; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

Convention: May 2-4, Hilton Hotel, Pittsburgh.

Associations of College and University Business Officers American Association

President: Paul G. King, Tennessee A. & I., Nashville; secretary-treasurer: Sinclair V. Jeter, Clark College, Atlanta, Ga.

Central Association

President: Harlan Kirk, Lawrence College, Appleton, Wis.; secretary-treasurer, James J. Ritterskamp Jr., Washington University, St. Louis.

Eastern Association

President: John F. Meck, Dartmouth College; secretary-treasurer: Kurt M. Hertzfeld, Boston University.

Southern Association

President: Clarence Scheps, Tulane University; secretary: C. O. Emmerich, Emory University.

Convention: April 3-5, Edgewater Gulf Hotel, Edgewater Park, Miss.

Western Association

President: Ernest Conrad, University of Washington; secretary: James Brainerd, Menlo College.

Convention: May 1-4, Salt Lake City.

American College Public Relations Association

President: Marvin G. Osborn Jr., Washington University, St. Louis; executive director: Frank L. Ashmore, 1785 Massachusetts Ave., Washington, D.C.

Canadian Association of University Business Officers

President: J. A. Wheeler, bursar, Mount Allison University; secretary-treasurer: D. S. Claringbold, treasurer, Hart House, University of Toronto.

American Alumni Council

President: George J. Cooke, Princeton University; executive director: Ernest T. Stewart, 1785 Massachusetts Ave., N.W., Washington 6, D.C.

College and University Personnel Association

President: Orie Myers, Emory University; executive secretary: Donald E. Dickason, University of Illinois. Permanent headquarters, 809 S. Wright St., Champaign, Ill.

Convention: Aug. 7-10, Carnegie Institute of Technology, Pittsburgh.

National Association of Physical Plant Administrators of Universities and Colleges

President: R. F. Gingrich, Kansas State University; secretary-treasurer: John H. Sweitzer, Earlham College, Richmond, Ind.

Convention: May 8-11, Statler Hotel, Boston.

Association of College and University Housing Officers

President: Joseph P. Nye, Columbia University; secretary-treasurer: A. Thornton Edwards, Kansas State University.

Convention: July 31-Aug. 3, Indiana University, Bloomington.

Association of College Unions

President: Chester A. Berry, University of Rhode Island; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

Convention: April 24-27, Indiana University, Bloomington.

National Association of College Stores

President: Sam Hanna, DePauw Bookstore, Greencastle, Ind.; general manager: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

NAMES IN THE NEWS



Karl A. Olsson

Dr. Karl A. Olsson, formerly instructor in English literature and church history at North Park College and Theological Seminary in Chicago,

was formally inaugurated last month as the fifth president of the institution. Dr. Olsson, however, had assumed his presidential duties on June 22.

Harold C. Cope, business manager of Earlham College, Richmond, Ind., has been elected president of the Indiana Association of College and University Business Officers. Mr. Cope joined the administrative staff at Earlham in 1946, serving as assistant controller and manager of dining rooms and residence halls before his appointment as business manager in 1958.

Harry X. Ford, former chairman of the art education department of the California College of Arts and Crafts, Oakland, has assumed the position of acting president of the college, following the resignation of Joseph A. Danysh.

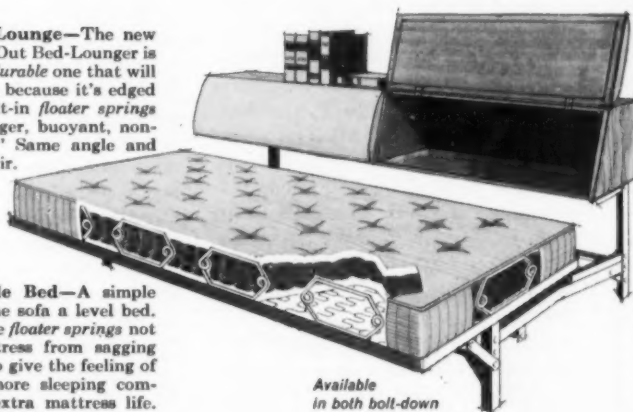
Dr. Elbert F. Osborn, dean of the college of mineral industries at Pennsylvania State University, recently was appointed vice president for research. He will succeed Dr. M. A. Farrell, director of the agricultural experiment station, who asked to be relieved of his vice presidential responsibilities.

Paul R. Loughlin has been named food manager of Indiana University's Memorial Union, Bloomington, ac-



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It's A Book Shelf—The new Pull-Out Bed-Lounger has a shelf-top, and can be had with book-end attachments. And since the shelf extends the entire length of the Bed-Lounger, it makes a roomy holder of all sorts of things, and eliminates that "cluttered room" look.

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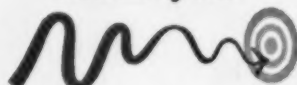
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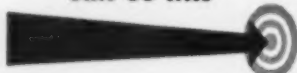
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cording to a recent announcement by **Harold W. Jordan**, director of the union. Mr. Loughlin had been catering manager for a Terre Haute, Ind., hotel for 11 years.



Clinton Johnson

Clinton T. Johnson, director of university services since 1952, has been appointed treasurer and controller of the University of Minnesota to succeed **Edwin C. Jackson**, who died September 24. Mr. Jackson had been named to the post in July when **Laurence R. Lunden** was promoted to the business vice presidency of the university.

Cassel C. Tucker, assistant business manager, University of California at Santa Barbara, has submitted his resignation in order to take a new position as controller of Robert College, Istanbul, Turkey, according to a recent announcement by **H. S. Thomson**, business manager. Mr. Tucker will succeed **George E. VanDyke**, who resigned recently to accept an appointment as executive director of the National Federation Consulting Service with offices in Chicago.

William W. Wurster, formerly dean of the college of architecture at the University of California, Berkeley, has been named dean of the newly established college of environmental design on the Berkeley campus. In his new position, Dean Wurster will be head of a broad administrative unit encompassing the department of architecture, city and regional planning, and landscape architecture.

Dr. John Tyler Caldwell, president of the University of Arkansas since 1952, is the new chancellor of North Carolina State College, Raleigh. As chancellor of North Carolina's land-grant college, Dr. Caldwell directs an institution composed of seven schools, 50 departments, and more than 6000 students.

Dr. Loren C. Eiseley, anthropologist and author, has been named provost of the University of Pennsylvania, according to a recent announcement by **Dr. Gaylord P. Harnwell**, president. Dr. Eiseley has been associated with the university since 1947.

Vice Chancellor **Vern O. Knudsen** became chancellor of the University of California, Los Angeles, on September 1. He succeeded **Dr. Raymond B.**

Allen, who resigned. Dr. Knudsen has been a member of the U.C.L.A. faculty since 1922.

William K. Hall, a member of the staff at Bowdoin College, Brunswick, Me., for more than 35 years and assistant bursar since 1946, retired recently.

Mary Ann Kearns, formerly employed by Marshall Field and Company in Chicago, is now administrative assistant for alumni affairs at Clark University, Worcester, Mass. More recently, Miss Kearns had served as a display advertising copywriter for Sears, Roebuck and Company in Chicago.

Robert Murray, formerly business manager of Buena Vista College, Storm Lake, Iowa, is now purchasing agent of Northern Illinois University,



Robert Murray



James W. Wisner

DeKalb. Another recent appointment at Northern Illinois is that of **James W. Wisner**, who joined the business staff as an accountant. His major responsibility will be that of initiating and performing the internal audit.

Arthur F. Connelly, who served Boston University for more than 30 years as purchasing agent, retired recently. **William Peters**, purchasing agent of Winslow Brothers and Smith of Boston for more than 20 years, has succeeded him.

Duane Lake, director of the University of Nebraska Union and former president of the Association of College Unions, resigned recently. No announcement has been made as to his future plans. **Allen Bennett**, assistant director, is serving as acting director.

Robert Handy, formerly program director of the University of Nebraska Union, has been appointed director of the new Union Building at the University of Kansas City.

George Fritz, assistant manager of the Union at Michigan State University, has been appointed director of the Michigan State University Union at the new Oakland-Rochester campus.

Fred Ambrose, for many years superintendent of buildings and grounds and later business manager of the State University of Iowa, died recently following a long illness.

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POSITIONS WANTED

Assistant Business Manager — Ten years experience supervising buildings and grounds department, food service and dormitory administration; college education in engineering and business administration; excellent references; available on 30 days notice; work record promptly furnished. Write to Box CW 488, COLLEGE AND UNIVERSITY BUSINESS.

Assistant Business Manager — Southeast area; experienced all phases of college business management; strong in supervision of auxiliary enterprises. Write to Box CW 496, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager-Purchasing Agent — Presently business manager of university with approximately 2200 enrollment; age 30, married, 3 children; experienced in procurement, maintenance, new construction, auxiliary enterprises, and business affairs. Write to Box CW 497, COLLEGE AND UNIVERSITY BUSINESS.

Business Executive — Age 50; ten years experience active law practice and fifteen years industrial business administration; seeking challenging position rather than high salary; no geographic restrictions; personal interview invited at own expense; background qualifications for all phases of administration except accounting or food service; particularly interested in purchasing, personnel, development and/or admissions. Write to Box CW-495, COLLEGE AND UNIVERSITY BUSINESS.

Buyer or Assistant Purchasing Agent — Position desired; have been purchasing agent for midwestern branch plant of National AAA-I firm and presently assistant secretary and sales manager for same; desire eastern or western location; married, age 38. Write to Box CW 487, COLLEGE AND UNIVERSITY BUSINESS.

College Business Management/Physical Plant Administration — Regular Navy officer with rank of Captain contemplates voluntary retirement, July 1960; B.S., Naval Academy, 1938; M.B.A., George Washington University, 1955; candidate for M.S. in education with major in college business management, University of Omaha, January 1960; desires work in some phase of college business manage-

ment, including physical plant administration; prefers middle Atlantic or southeast location; age 45; married; three children. Write to Box CW 492, COLLEGE AND UNIVERSITY BUSINESS.

Director of Physical Plant — Extensive experience in construction and maintenance with supervisory and management abilities is available to serve as physical plant administrator or to act as liaison between owner and contractor to assure value for expenditures; high calibre, self starter, seasoned executive, good character and health. Write to Box CW-491, COLLEGE AND UNIVERSITY BUSINESS.

Finance, Counseling or Fund-Raising — Young man, age 28, seeks new career; would like to work with college administrative officer in one of the three possible areas; experience; B.A. Degree, was accountant in Army Finance Corps, currently partner in investment brokerage and counseling firm; have enjoyed taking leadership in long-range community development projects in large midwest city; would favor opportunity to pursue further graduate study; references include people of top rank in college administration, banking, industry, law, and ministry; all of whom I have worked with in non-professional capacities; If interested please write to Box CW 490, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director — Varied experience in large volume student union, inplant catering and commercial food services; degree in Institutional Management; capable of planning, developing and profitably operating new installations. Write to Box CW 494, COLLEGE AND UNIVERSITY BUSINESS.

Research Manager — Military — Government liaison; can direct your entire research program, preferably in Washington, D.C.; ex Navy Commander; fifteen years experience with grants and contracts. Write to Box CW 493, COLLEGE AND UNIVERSITY BUSINESS.

Treasurer, Business Manager, Survey Director — Retired; extensive experience; no salary; modest expense allowance only; Christian college, south or southwest preferred. Write to Box CW 489, COLLEGE AND UNIVERSITY BUSINESS.

University Administrator — Position with a growing organization or institution, opportunity for advancement; education: B.S., M.A., M.B.A.; Majors: Educational Administration, Management and Finance; Minors: Accounting and Law; experience: 19 years in education, 12 higher education; 14 years business; all phases of university administration; excellent background; top class references, credentials, etc.; author and writer. Write to Box CW 483, COLLEGE AND UNIVERSITY BUSINESS.

POSITIONS OPEN

Assistant Food Service Director — For Middle Atlantic state college; involves planning meals and food supervision; send details about educational training and experience; also send references to Box CO 332, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager — Experienced in purchasing, accounting, residence halls, buildings and grounds maintenance; southern California girls preparatory school; 300 students; begin February 1 or earlier; send resume and photograph to Box CO 333, COLLEGE AND UNIVERSITY BUSINESS.

Director and Manager of Food Service — For a private liberal arts college in a metropolitan area in the Middle West for the fall of 1960 or sooner; involves managing two dining halls and feeding about 600 students, planning meals, buying, and supervising help; send details about educational training and experience; also references. Write Box CO 326, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Directors — Excellent opportunities are available for young men and women with food service experience; a leading food service caterer needs managers immediately for: colleges and schools; salary open; relocate. Send resume to Box CO 285, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Personnel — Immediate openings for managers, manager trainees, chef managers, chefs, young qualified male graduates who enjoy campus environment; best salaries, benefits; promotional opportunities in leading college food service organization; send personal data to SAGA FOOD SERVICE, 174 West College Street, Oberlin, Ohio.

Superintendent of Buildings and Grounds — For a private liberal arts college in metropolitan area in Middle West beginning summer, 1960; must have had some previous experience; send details about educational training and experience; also references. Write Box CO 325, COLLEGE AND UNIVERSITY BUSINESS.

MISCELLANEOUS

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Modern 3-level school built with LUPTON aluminum curtain-wall

Modern is the word for Seton Catholic High School. Modern in its 3-level design. Modern in its use of LUPTON aluminum curtain-wall.

Modern in its use of color, also. The contrast of orange-red brick with rich blue-green opaque panels—part of 234 units of LUPTON Type "H" curtain-wall installed. Another decorative effect is the alternating deep and shallow mullions.

Of course, LUPTON aluminum curtain-wall means more than modern beauty and design flexibility. It means abundant light and controlled ventilation. It means reduced maintenance . . . simplified, economical installation. The lightweight ruggedness of LUPTON aluminum curtain-wall lowers foundation and framework costs. You get more usable floor space.

See SWEET'S (Sections 3 and 17) for the Michael Flynn Aluminum Curtain-Wall and Window catalogs, and write for further specific information. Inquire about Comfort-Conditioning*—the new curtain-wall system that cools, heats, and ventilates. A call to the nearest LUPTON representative (see the Yellow Pages under "Windows—Metal") will bring fast action without obligation. *(Trade Mark)

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METAL WINDOWS • CURTAIN WALLS
MICHAEL FLYNN MANUFACTURING COMPANY

Main Office & Plant: 700 E. Godfrey Ave., Philadelphia 24, Pa.;
West Coast Plant: City of Industry, Calif. (Los Angeles County)—
New York, N. Y.; Chicago, Ill.; Cincinnati, Ohio; Cleveland, Ohio;
Stockton, Calif.; Dallas, Texas. Representatives in other principal cities.

Seton Catholic High School, Endicott, N.Y.
Architect: A. T. Lacey & Son, Binghamton, N. Y.
Contractor: Vincent J. Smith, Binghamton, N. Y.
Photograph: Cortland V. D. Hubbard.





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This mobile ladder truck saves 50% or more labor time. Widely used for maintenance of lights; painting, washing, cleaning of windows, blinds and upper wall spaces. Model M-6, shown, is for 7' to 14' overhead work. Also available in a smaller and a larger model.

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SAFE-LAD MFG. CO., 1033 S. E. ASH ST., PORTLAND 14, ORE.
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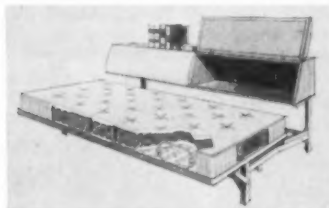
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Institution _____
Address _____
City _____ Zone _____ State _____

WHAT'S NEW

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card on page 97. Circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Pull-Out Bed Lounger for Dormitories and Residences

A comfortable bed is quickly provided with the new Southern Cross Pull-Out Bed



Lounger for dormitories and residence facilities. An attractive, comfortable lounge by day, the Bed Lounger stores pillows and blankets in the bolster back and includes a roomy book shelf. The bolster back is cushioned in foam rubber, covered with heavy duty synthetic leather. A wide variety of colored laminated plastics, Formica and other materials is available for the storage box top, sides and center partition. The Bed Lounger is available in both bolt down and movable models, with or without arms. Southern Spring Bed Co., Contract Div., P.O. Box 1597, Atlanta 1, Ga. For more details circle #145 on mailing card.

Liquid Hot Chocolate Available In Tins

Liquid Hot Chocolate, used as a beverage base or a dessert topping, is now available in tin containers to facilitate handling without the risk of breakage, and it comes in both one pint and number two-and-a-half cans. The chocolate also features a new formula which provides special richness in flavor. Continental Coffee Co., 2550 N. Clybourn Ave., Chicago 14. For more details circle #146 on mailing card.

Futura Letter Box in Four Modular Sizes



Four modular sizes are available in the new line of letter boxes introduced for institutional use by Cutler. The Futura is built of polished satin finish aluminum, tailored on functional lines to blend with

modern interiors. The four sizes are designed to fit with each other in a panel, providing maximum flexibility. Keyed and combination security locking arrangements can be furnished with over 8000 possible combinations in the combination lock mechanisms. Cutler Mail Chute Co., P.O. Box 1819, Rochester 7, N.Y.

For more details circle #147 on mailing card.

Automatic Roasting Controls Put Automation in Cooking

Better roasts with increased servings per pound are assured with the automatic roasting controls developed by Minneapolis-Honeywell. An Electronik strip chart recorder monitors oven temperatures when the automatic controls have been set, providing a permanent record of oven performance. Overcooking, with subsequent waste, is prevented as an alarm sounds when the desired internal meat temperature is reached, and a light remains on the control panel until the temperature-sensing element inside the oven is disconnected. Min-



neapolis-Honeywell, Brown Instrument Div., Wayne & Windrim Aves., Philadelphia, Pa.

For more details circle #148 on mailing card.

Liquid Detergent Cleans, Disinfects and Deodorizes

Cleaning, disinfecting and deodorizing is accomplished in one application of N-DIT, a new liquid detergent which, when diluted with water, can be used wherever water is used for cleaning. The colorless, pleasantly scented liquid produces liberal suds, has rapid wetting, dispersing and penetrating powers, holds loosened dirt in suspension, rinses freely and completely, leaves no dirt film on surfaces and causes rapid destruction of bacteria. J. I. Holcomb Mfg. Co., Inc., 1600 Barth Ave., Indianapolis 7, Ind.

For more details circle #149 on mailing card.

Midget Size Safe Smoker for Individual Use

Sipco Model M Midget Size Safe Smoker is a cigaret and cigar "dunking station" for use in telephone booths, toilet stalls, work

tables and other areas where an individual type smoker is required. The heavy duty coil spring across the hinged lid safely holds the unfinished cigar or cigarette and the



heavy duty cast aluminum canister in either gray crinkle or deluxe bright polished finish protects against any possibility of fire or damage. Standard Industrial Products Co., 3527 Farmington Rd., Peoria, Ill.

For more details circle #150 on mailing card.

Plastic Tumbler Can Be Sterilized

High-density polyethylene is used to mold the new Zylon plastic tumbler which can be sterilized in automatic washers without losing its original gloss. Rough handling does not bend, break or crack it and it is suitable for use with hot and cold beverages. The new tumbler, made of Marlex, is available in four, five, ten, twelve and fourteen-ounce sizes. Zylon Products Co., Inc., Pawtucket, R.I.

For more details circle #151 on mailing card.

Wall-Tite Water Cooler Is Modern in Design

The modern design of the Halsey Taylor Wall-Tite Water Cooler conceals plumbing, saves floor space since the unit fits snugly against the wall, and facilitates installation. The Wall-Tite is available in six, 11 or 16-gallon capacities, stands 40 inches high, extends 13 inches from the wall and is 15 and three-fourths inches wide. Its stainless steel top has a fully-con-



toured, splash-resistant basin and a wall protective shield for easy maintenance. Halsey W. Taylor Co., Warren, Ohio.

For more details circle #152 on mailing card.

(Continued on page 90)

Gymport Landing Net of Double Nylon Mesh

Designed for use as a teaching aid with horizontal bars, rings and tumbling, the



new Gymport Landing Net is fabricated of double thickness nylon mesh. It is light in weight but will support over 1000 pounds. It is easily handled and is available in several sizes. Nissen Gymport, 200 A Avenue N.W., Cedar Rapids, Iowa.

For more details circle #153 on mailing card.

Custom Made Sound Systems Designed to Meet Needs

The new line of RCA Modular sound control systems provides reliability at low cost. Custom designed to meet the needs of small buildings as well as large installations, the systems feature simplicity of operation and easy selection of components for specific requirements. Components include four cabinet types and a wide selection of standard assemblies which can be installed in many combinations for a high degree of flexibility. The specified RCA sound system elements are custom-assembled at the factory and shipped ready for installation. All assemblies are pre-wired, with plug-in connections for convenient hook-up at the site of installation. Radio Corporation of America, Educational Division, Camden, N.J.

For more details circle #154 on mailing card.

Surface Mounted Interior Doors With "Surfaset" Hardware

"Surfaset" is the descriptive name given to the new concept in interior hardware for doors which are hung over openings instead of in them. The surface mounted door hardware permits full opening clearance since doors swing 100 per cent clear of the opening, even at a 90 degree angle.



Instead of filling the opening, the door overlaps and covers it, thus no planing or fitting, frames or face trim are necessary. The hardware operates by push-pull action, without turning the knob, thus offering practically unlimited design possibili-

ties. The latch and strike permit quiet operation so that doors open and close without clicking or other sound. The Stanley Works, 195 Lake St., New Britain, Conn. For more details circle #155 on mailing card.

Bakery Products Shortening Spreads Without Tearing

Glodo is the name of a new shortening designed specifically for the baking of sweet yeast bakery products. It spreads easily for roll-in and does not tear the dough. Developed by the Procter & Gamble Research Bakery, it has excellent baking properties and a golden color which adds appetite appeal. Procter & Gamble, P. O. Box 599, Cincinnati 1, Ohio.

For more details circle #156 on mailing card.

Automatic Collator Now in 12-Station Size

Large-scale equipment for automatically collating material is offered in the new Gathermatic Collator. The new 12-station collator features fully automatic operation and will gather duplicated material into sets at a production rate of 6000 sheets per hour. The equipment may be set for less than the full 12-station cycle and offers features usually available only in larger, more expensive units. It is easy to operate, has checks for accuracy of collation, and can be set for any number of sheets up to



12 by adjustment of a lever. Thomas Collators Inc., 100 Church St., New York 7.

For more details circle #157 on mailing card.

Sea Foam Vicrtex Wall Covering Is Attractive and Durable

Sea Foam is the name given to the new design in Vicrtex vinyl wall covering. The pattern gives the effect of a breaking wave and appears to be changing with moving light and viewing angles. It is available in a wide range of colors and the durable material is waterproof and weatherproof, resistant to stains and fading, unaffected by atmosphere or climate, and wipes clean with a damp cloth. L. E. Carpenter & Co., Inc., Empire State Bldg., New York 1.

For more details circle #158 on mailing card.

Roof Deck Assembly Has Galvanized Steel Sub-Purlin

Structural advantages in high strength qualities of Tectum roof deck, and a new rigid box-type sub-purlin of galvanized steel, are some features of the new Tectum Box Section Roof Deck Assembly. Two-way continuous-beam principles are applied to roof deck and sub-purlin design,

giving the assembly excellent lateral strength. Speed of erection, light weight box sections which are easily handled, simplified installation and moisture-proof,



maintenance-free finish are advantages of the new assembly. Tectum Corporation, Newark, Ohio.

For more details circle #159 on mailing card.

Non-Tip Steel Folding Chair Is Budget Priced

Budget priced, the new BeLa Scotsman Model 6000 all-steel folding chair has non-tip safety design and large comfortable saddle contoured seat. It is sturdily built of tubular steel, is attractive in appearance and is available in a choice of seven frame colors. BeLa Div., J & J Tool & Machine Co., 9505 S. Prairie Ave., Chicago 28.

For more details circle #160 on mailing card.

Banana Syrup and Ripple for Dessert Variations

Chiquita Banana Fountain Syrup and Chiquita Golden Banana Ripple are two new prepared banana products for use in desserts. The syrup is supplied in 46-ounce cans and is suitable for fountain use. The Banana Ripple is supplied in number ten cans and five-gallon drums and is suitable for use as a topping. American Home Foods, 22 E. 40th St., New York 16.

For more details circle #161 on mailing card.

Efficient Exhaust and Safe Storage Provided in Metalab Fume Hood

Greater safety in the laboratory, through more efficient exhaust and ventilated storage space for chemical reagents, is provided in the new Fumex design H-400 Acid-Solvent Storage Fume Hood. The unit is resistant to corrosion with interior, shelves and drip pan of stainless steel and composition stone. The exterior is bonderized steel

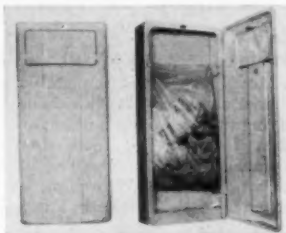


with special finishes. It is designed to achieve economies in space, installation and operating costs, and can be combined with other Metalab modular units. Metalab Equipment Co., Hicksville, L.I., N.Y.

For more details circle #162 on mailing card.

Wall-Hung Waste Receptacles Save Space and Facilitate Maintenance

A stainless steel, wall-hung waste receptacle, especially suited for areas where



floor space is limited, is the newest addition to the United Metal Cabinet line. It comes with a vinyl plastic bag for convenient disposal of waste, and its off-the-floor installation facilitates maintenance. The receptacle is 17 inches wide, 37 inches high and eight inches deep, and features rubber bumpers on the inside of the swinging door to minimize impact and noise. A hidden catch for opening the receptacle offers tamper-proof protection. **United Metal Cabinet Corp., 8 E. 36th St., New York 16.**

For more details circle #163 on mailing card.

Textolite Plastic Surfacing Now Has Textured Finish

A new appearance and finish are available in General Electric's Textolite laminated plastic for desk and table tops and other work surfaces. The new Textured Textolite has a three dimensional appearance and a textured feel, resulting in more realistic woodgrain patterns. It also has improved wearability and the new finish virtually eliminates glare. Textured Textolite surfacing is available in selected colors and patterns, including solids, mists and wood grains. **General Electric Co., Coshoc-ton, Ohio.**

For more details circle #164 on mailing card.

Battery-Powered Sweeper Cleans Congested Areas

The Tennant Model 40-E is a new battery-powered 33-inch wide sweeper which is self-propelled and designed for clearing congested areas in institutions and other public buildings. The cylindrical 26-inch main brush with the 17-inch rotary side brush cleans a 34-inch path. Quickly-changed batteries are mounted in a steel case above the dirt hopper for easy access



and finger-tip controls are located in the machine handle. The machine stops automatically when handle is released. **G. H. Tennant Co., 721 N. Lilac Drive, Minneapolis 22, Minn.**

For more details circle #165 on mailing card.

Liquid Detergent Cleans Dishes and Glassware

Handwashing of dishes, silverware and glassware is effectively done with the newly introduced Arctic Syntex "M" Liquid Detergent. A special ingredient makes suds stand up longer, even in hard water, thus holding grease and soil in suspension for more effective and speedy cleaning. The product is formulated to lather abundantly in any type water and to leave dishes and glassware sparkling clean without wiping. **Associated Products Dept., Colgate-Palmolive Co., 300 Park Ave., New York 22.**

For more details circle #166 on mailing card.

Easy-Positioning and Bright Light Combined in Luxo Magnifying Lamp

Large magnification, cool fluorescent light and maneuverability are features of the new Model FLM-1 Luxo Magnifying Lamp. A Circline fluorescent tube provides shadow-free light for the viewing area and a precision ground lens gives distortion-free 4X magnification. The lamp is easily adjusted to any position, and stays there until moved. **Luxo Lamp Corp., Dock St., Port Chester, N.Y.**

For more details circle #167 on mailing card.

Caddy Tray Service Unit Has Cutlery Containers



The Caddy Model T-402 tray service unit for cafeteria and other food service is now available with ten standard round perforated cutlery containers. The unit is also offered with a standard stainless steel accessory for dispensing napkins. This is removable and may be affixed at either or both ends of the cutlery housing. A fold-away shelf is also available on one or both ends of all models. **The Caddy Corp. of America, Secaucus, N.J.**

For more details circle #168 on mailing card.

Low-Cost Maintenance Paint Holds Color and Gloss

Durawear Maintenance Paint is an inexpensive product with excellent hiding properties plus color and gloss retention. It gives extra protection to surfaces over long periods, making it practical for window sash and trim, wall surfaces, storage tanks and other areas indoors or out where paint protection is indicated. Valdura Durawear has a linseed oil modified alkyd vehicle with excellent brushability on steel, wood and masonry surfaces and is available in five colors. **American-Marietta Co., 101 E. Ontario St., Chicago 11.**

For more details circle #169 on mailing card.

Large Work Surface On Brunswick Stacking Desk

A large, 20-by-24-inch top, unbroken by a pencil trough, is featured on the new



Brunswick multi-use stacking desk, available in five heights. The desk has a 1469 cubic inch capacity book shelf, modern styling, and can be stacked or grouped. It may be coordinated with other units in the Contemporary Series line and has a parchment-pattern melamine plastic top for durability with attractive appearance. **Brunswick-Balke-Collender Co., 623 S. Wabash Ave., Chicago 5.**

For more details circle #170 on mailing card.

Venus 3500 Pencil

Requires Less Sharpening

A new kind of lead pencil, described as writing as black as a soft pencil, with a point that can't break by writing, is introduced in the Venus 3500. The new writing instrument requires less sharpening and is economical because of its hardness. It is made possible by the creation of a vastly improved clay and graphite structure formed through new methods of processing. **Venus Pen & Pencil Corporation, Lewisburg, Tenn.**

For more details circle #171 on mailing card.

Full Line of Duplicating Machines for Seated-Posture Operation

The full line of Ditto Direct Process duplicating machines is now offered for seated operation. The 14D75 has foot pedals readily adjustable in two directions, to fit either tall or short operators. The visible fluid gauge permits pumping directly from the container in which it is received. The operator can switch quickly from large sheets to small ones and there is a lever for continuous feeding if desired. The machine



is completely designed to make sit-down operation comfortable and efficient. **Ditto, Incorporated, 6800 McCormick Blvd., Chicago 45.**

For more details circle #172 on mailing card.

(Continued on page 92)

**Portable Microfilmer
Weights Only 24 Pounds**



Designed to be carried from place to place where it is needed, the new Recordak Portable Microfilmer weighs only 24 pounds. It has all of the features built into the larger microfilmers, with film units removable and interchangeable. Two rolls of film may be exposed simultaneously and the film unit has a capacity of 100 feet. Documents 12 inches wide, of any length, may be photographed in sequence. Recordak, 415 Madison Ave., New York 17.

For more details circle #173 on mailing card.

**Radarange Oven in Colors
Has Reduced Cost**

Price reduction with choice of colors are features of the new Mark III Radarange oven which cooks with microwave energy in seconds. The new model is available in six colors and has simplified electronic circuits for lower maintenance and original costs. The new power-generating tube has

a sealed-in system of circulating cooling liquid to prevent overheating. The speed of cooking also cuts labor and food costs and eliminates burn hazards. Raytheon Mfg. Co., Waltham 54, Mass.

For more details circle #174 on mailing card.

**T & S "Kettle Kaddy"
Cleans Steam Jacketed Kettles**

A free-standing kettle filler and rinser that can be mounted at any convenient



point to service as many as three or more steam jacketed kettles is available in the T & S "Kettle Kaddy." Developed to handle the problem of cleaning and filling heavy, unwieldy steam jacketed cookers, the unit has flexible stainless steel hoses which can be furnished in any desired lengths. Hoses, and rinser and filler heads are stored when not in use on the handy hook attachments. The "Kettle Kaddy" is a heavy duty unit with all piping concealed. It bolts securely to the floor and is available as a complete Combination Pot Filler

and Spray Stanchion or as a Pot Filler Stanchion. T & S Brass & Bronze Works, Inc., 128 Magnolia, Westbury, L.I., N.Y.

For more details circle #175 on mailing card.

**Mobile TV System
Is Complete Studio on Wheels**

The Model ETS-1 is a completely mobile educational closed-circuit television system simplifying the presentation of audio-visual television lessons. The mobile console, which includes video monitors, camera control, sync generator, power supply and wave form monitor, will fit in an elevator or a panel truck and passes through a standard 30-inch door. The system includes a Dage 700 line resolution TV camera with viewfinder, hood and rear-controlled four-lens turret. The console is



especially designed to accommodate added equipment as needed. Dage Television Div., Thompson Ramo Wooldridge, Inc., Michigan City, Ind.

For more details circle #176 on mailing card.

Wall-Away's New Dormitory Rooms Prove

**DESIGN,
NOT
DOLLARS,
MAKES THE
DIFFERENCE**

Good student rooms can make decided improvement in student behavior, yet rooms like this need not cost more! Wall-Away provides a complete, integrated service for student rooms — layouts, estimates, engineering, manufacture and installation. Get the facts on Wall-Away installations in leading universities. Send for free Wall-Away Designer's Manual.



Wall-Away Corporation
WABASH, INDIANA

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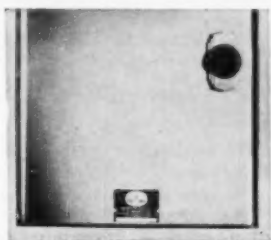
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Here's What to Do With Key for Key Cabinet

The answer to the question of what to do with the key to the key cabinet is pro-



vided by the new combination lock for the TelKee system of key control. Three different Sargent & Greenleaf combination locks are available for the systems. One of these, the "Manipulation Proof" lock, is a key change type with one million combination changes, designed to provide security against entry by manipulation through sense of touch or sound, by "reading," or by use of electronic listening devices. P.O. Moore, Inc., Glen Riddle, Pa.

For more details circle #177 on mailing card.

Water Flow Control Operates Automatically

The Autoflo water flow control is designed to eliminate the needless waste of water from shower heads and other fixtures. It is installed right in the water line, cutting water heating costs and water usage by controlling the flow, regardless of line

pressures. It is designed for use in multiple water-fixture installations such as colleges and other institutions. Speakman Co., 30th & Spruce Sts., Wilmington 99, Del.

For more details circle #178 on mailing card.

Folding Partitions Have Improved Sound Control

Operational clearance spaces are completely sealed in the improved line of Modernfold "Soundmaster" sound-retardant



folding partitions. The mass of chipboard liner for sound deadening is increased for more efficient operation and a stronger, more rigid frame with newly designed hinge plates is another improvement. New Castle Products, Inc., New Castle, Ind.

For more details circle #179 on mailing card.

Low-Cost Fentura System Is Long Span Roof Deck

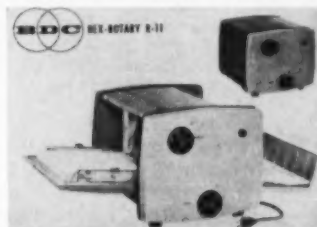
The new Fentura long span roof deck is a low cost system especially adaptable to school construction. The flexible unit is

capable of spanning up to 32 feet and longer and can be finished at any time with lighting troffers for recessed lighting or standard acoustical tiles. Available in three depths, Fentura is cold formed in a continuous rolling operation to ensure uniformity and has a tight-coat galvanized finish. Fenestra Inc., 2250 E. Grand Blvd., Detroit 11, Mich.

For more details circle #180 on mailing card.

Self-Contained Spirit Duplicator Introduced by Bohn

The Rex-Rotary R-11 spirit duplicator is so designed that the feed and receiving trays fold around it to form an attractive, dustproof case, the unit occupying less space than a typewriter. A new wick prevents flooding, the master clamp is automatic, and one control separates all rollers



and shuts off fluid supply. The R-11 is available in electric and hand-operated models. Bohn Duplicator Co., 444 Park Ave., New York 16.

For more details circle #181 on mailing card.

(Continued on page 94)

STOP FIRES FROM CARELESS SMOKING WITH SIPCO DUNKING STATIONS

Canister extends
only 5½" from
mounting
surface.



Model 1JD

Thousands of businesses, industries and institutions have discovered that SIPCO DUNKING STATIONS not only eliminate fire hazards from smoking, but also prevent litter, thus greatly reducing cleanup time.

Heavy duty cast aluminum canisters guaranteed 3 years against breakage. Over 20 different models. Standard and Jumbo sizes. Wall models, floor models and permanent mounting models. Grey crinkle or bright polished models. With or without message signs and decals. Special colors, signs or decals on special order.

SIPCO DUNKING STATIONS are designed to be partly filled with water. "Smokes" dropped in the large top hole are OUT FOR GOOD—NO SMOULDERING—NO ODORS—NO UNSANITARY CONDITIONS. Lift off the canister or lift out an inner-liner, dump it and the cleaning job is done.

MODEL 4J: For permanent mounting on walls, posts, columns, etc., in public areas. Eliminates piffing problem. Bright polished JUMBO canister furnished with glass-fiber innerliner.

MODEL 1JD: Jumbo size deluxe floor model. Heavy weighted base and eye catching sign. Height 38", Wt. 26 lb. Ideal for halls, aisles, landings, etc.

MODEL M: New MIDGET SAFE SMOKER designed for use in telephone booths, elevators, toilet stalls, on benches, chairs, work tables or any location where a small "individual type" smoker is needed. Cast aluminum canister; coil spring across hinged lid safely "parks" unfinished "smokes". Available in grey crinkle or DELUXE bright polished finishes.



Model 4J



Model M

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STANDARD INDUSTRIAL PRODUCTS CO.
DEPT. CU • 3527 FARMINGTON RD. • PEORIA, ILLINOIS

DURABLE and SMART furniture



No. 8213
Wall-Saving Side Chair
(No. 8212 matching
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Wide assortment of chairs and tables. See your dealer or write us for our distributor's name.

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**Graflex Instructor 150
Is Low-Priced Unit**

Low price, light weight and easy operation are features of the new Graflex In-



structor 150 35mm filmstrip projector. A newly developed 150-watt Sylvania Proximity reflector-type lamp with a four-pin base is used to ensure perfect optical alignment with consistently brilliant projection image and uniform screen illumination. A lamp ejector, pushbutton film advance and integral film take-up compartment are also featured. Graflex, Inc., Dept. 112, 3750 Monroe Ave., Rochester 3, N.Y.

For more details circle #182 on mailing card.

**Lab Treet Mop Dressing
Is Non-Inflammable**

A 100 per cent non-inflammable mop dressing and dust control product for asphalt tile and other flooring surfaces is available in Lab Treet. The new product contains no petroleum derivatives, yet has excellent dust pickup properties due to the incorporation of a humectant which keeps the mop faintly moist. Lab Treet is completely water miscible, washing with the

soil from the mop without laundering. Chemical Service of Baltimore, Inc., Howard & West Sts., Baltimore 30, Md.

For more details circle #183 on mailing card.

**Metal Repair Kit
for Maintenance Engineer**

The NCG "Combo Kit" is a gas welding and flame cutting outfit for quick, easy and inexpensive repair of metal articles in institutions. The kit includes welding torch, cutting attachment and tip, three welding tips and all other equipment



needed, including an instruction book. It provides the means for handling welding, cutting, silver soldering and heating jobs required in repair and maintenance of machinery electrical appliances. National Cylinder Gas, Div. of Chemetron Corp., 840 N. Michigan Ave., Chicago 11.

For more details circle #184 on mailing card.

**Waste Pipe Cleaner
Is Harmless and Safe**

Used according to directions, the new Mule-Kick Waste Pipe Cleaner is complete-

ly harmless and safe and produces maximum strength in clearing waste pipe stoppages. The specially formulated product contains no adulterants and does not generate noxious fumes. It is packaged in a special triple-sealed metal container to preserve the strength of the chemical indefinitely. J. A. Sexauer Mfg. Co., 2503 Third Ave., New York 51.

For more details circle #185 on mailing card.

**Smaller Hydroguard
Saves Hot Water**

Hot water can be saved where smaller shower heads are used when the new Hydroguard thermostatic water mixer is installed. The Hydroguard unit replaces conventional hot and cold hand valves, delivering water at an unvarying temperature, regardless of supply line fluctuations. The Type H-5 is a new five gallon per minute capacity mixer which has a built-in



safety limit which prevents delivery of hot water above 110 degrees F. Powers Regulator Co., 3406 Oakton St., Skokie, Ill.

For more details circle #186 on mailing card.

THIS MONTH'S

**Super
Value**

**HI-LO
EASY CHAIR**

With All These Features!

- (A) Adjustable Height Back Cushion
- (B) Form-Fitting Bent Wood Back Frame
- (C) Wall-Saver Design

No. 1082 Easy Chair's back cushion can be used in two positions — with top flush with the chair's back frame, or held 5" higher by means of a novel strap holder. It is ideal for convalescent patients — unmatched in comfort and durability for any use. Spring-filled seat cushion and latex-filled back cushion are removable and upholstered with elastic Naugahyde. Must be seen to be fully appreciated. On display at our showroom — or let us demonstrate in your institution. **LOWEST CONTRACT PRICES.**



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FOLD-KING**



FOLDING CHAIRS
All steel, also plywood or padded seat. Complete line. Direct prices, discounts. See Catalog.



TABLE and CHAIR TRUCKS
the leader, 7 models, sizes — for transporting, storing. Smooth rolling, easy loading. See Catalog.



**Announcing NEW
Monroe FOLD-KING
TABLE LINE**

**FREE—NEW 1960 CATALOG AND
DIRECT-TO-INSTITUTIONS PRICES**

Kitchen committees, social groups, attention! Direct-from-factory prices—discounts up to 40%—terms. Churches, Schools, Clubs, Lodges and all organizations. Our new **MONROE 1960 FOLDING BANQUET TABLES** are unmatched for quality, durability, convenience and handsome appearance.

NEW—Completely automatic lock on pedestals and legs. "Snaps" them rigidly in place, or folded flat. New pedestal and frame construction.

Mail coupon, write, wire or phone for our beautiful new catalog with color pictures of Folding Tables, Folding Chairs, Table and Chair Trucks, Portable Partitions, Bulletin Boards, Folding Risers and Platforms.

MAIL THIS SPECIAL COUPON TODAY!

Please send the new 1960 Monroe FOLD-KING Catalog—prices, discounts, terms.

Name of church, organization _____ Title _____

Mail to _____

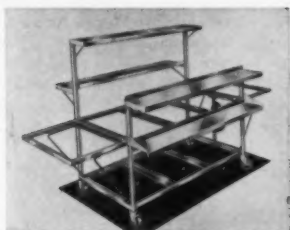
Address _____

City _____ Zone _____ State _____

We are interested in (Tables, Chairs, etc.) _____

THE MONROE COMPANY 77 Church St. COLFAX, IOWA

Tri-Veyor Serving Cart Provides Mobile Cafeteria



A mobile cafeteria is quickly and easily set up with the new Tri-Veyor Serving Cart. It can be wheeled to any multi-purpose or dining area for food service. The special tubular and frame cart has an electrical raceway on the serving side with three electrical outlets to plug in Tri-Veyor units when the serving period exceeds thirty minutes. The Tri-Veyor units permit serving hot food that is steaming and flavorful, while cold foods are kept fresh and crisp. **Seco Company, Inc., 4560 Gustine Ave., St. Louis 16, Mo.**

For more details circle #187 on mailing card.

Translucent Building Panels Have Insulating Features

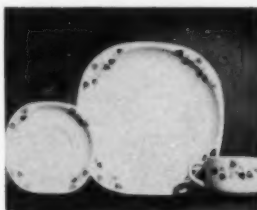
Assembled from fiberglass-reinforced polyester skins bonded to heavy extruded aluminum frames and internal grids, Sanpan translucent building panels have high insulating qualities while transmitting comfortably diffused illumination. They are

light in weight and are now available in three types for numerous exterior and interior architectural and decorative treatments. **Panel Structures, Inc., 45 Greenwood Ave., East Orange, N.J.**

For more details circle #188 on mailing card.

Delmar China in Square-Shaped Trend Design

Designed to fit conveniently on cafeteria trays or on crowded tables. Trend shaped Syracuse China is now available in the new



Delmar pattern. Corner decals of turquoise with tan heart-shaped leaves accented by pale red berries give china a cheerful appearance, while the steel-hard glaze protects the design in use and during washing. **Syracuse China Corp., Syracuse, N.Y.**

For more details circle #189 on mailing card.

Compact Ice Cube Machine Produces 1,200 Cubes Daily

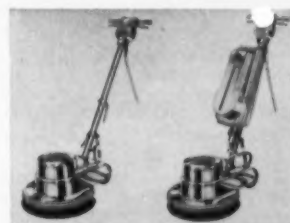
Only three square feet of floor space are necessary for installation of the 50-pound capacity Super Cuber Ice Machine, which is designed for use as either a "built-in" or

floor unit, and produces approximately 1,200 cubes daily. A heavily insulated stainless steel compartment stores up to 35 pounds of cubes for instant use and a hinged door provides easy access. The unit is finished in gray hammerloid with stainless steel front and trim. **Scotsman, Queen Products Div., Albert Lea, Minn.**

For more details circle #190 on mailing card.

Floor Maintainer Line Has Totally Enclosed Motor

A totally enclosed motor, designed especially for the new line of Clarke floor maintainers, drives the brush at a rated speed on any 15 amp. circuit, even when steel wooling wet floor seal or when disc sanding. The new machines are designed to perform a wide range of floor cleaning and renovating jobs and are available with brush diameters of 14, 15, 17 and 20 inches,



with motors of corresponding size, for use on any type of floor. **Clarke Floor Machine Co., Muskegon, Mich.**

For more details circle #191 on mailing card.

(Continued on page 96)

Lamps*

The UNIVERSITY LINE...

DESIGNED AND BUILT SPECIFICALLY
FOR COLLEGE RESIDENCE HALLS



*Both Portable and as Fixtures

WRITE FOR NEW
CATALOG

Excel

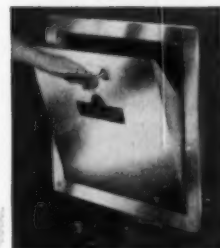
MFG. CORP., MUNCIE, IND.

Without Centralized Disposal...even a new building is obsolete!

Centralized disposal in multi-story buildings is more than a convenience—it assures yearly savings for the life of the building. **Wilkinson Chutes** are designed for the centralized disposal of soiled linen, rubbish, dust, waste paper, garbage, or any other material that can be dropped without damage from an upper floor.

See our catalog
in Sweet's
Architectural File
26f
WI

WILKINSON CHUTES, INC.
619 East Tallmadge Ave., Akron 10, Ohio



Wilkinson "B" Labeled Door. Designed for Hand or Foot Operation.

In college and dormitory buildings, **Wilkinson waste paper and rubbish chutes** eliminate excessive janitorial help by efficient central disposal.



Literature and Services

- Plumbing and heating repair items and brass specialties available from Crest Mfg. Co., 4-65 Forty-Eighth Ave., Long Island City 1, N.Y., are listed in **Catalog C** recently released. Descriptive information on 3000 items is presented in the catalog which includes sink, lavatory and bath faucets, stop and wastes, lawn faucets, flexible supplies and rubber specialties.
For more details circle #192 on mailing card.
- Covering all phases of finishing and maintaining gymnasium floors, from the initial treatment of new floors to the method of restoration when refinishing is necessary, the new **Multi-Clean Method Bulletin** describes step-by-step techniques. Copies are available from Multi-Clean Products, Inc., 2277 Ford Pkwy., St. Paul 1, Minn.
For more details circle #193 on mailing card.
- The complete line of **Kitchen Machines** manufactured by the Toledo Scale Corporation, Kitchen Machines Div., 245 Hollenbeck St., Rochester, N.Y., is described and illustrated in a seven-fold broadside, **Form SD-3814**. The colorful publication covers Toledo dishwashers, peelers, mixers, choppers, saws, slicers and steak machines, and discusses outstanding features of each that help cut costs, save time and speed operation.
For more details circle #194 on mailing card.
- **Technical Bulletin No. 351** covers both the general and mechanical design of the McQuay line of cabinet heaters and presents charts and tables for steam and hot water capacity ratings. The bulletin is available from McQuay, Inc., 1600 Broadway St., N.E., Minneapolis 13, Minn.
For more details circle #195 on mailing card.
- Four architectural stainless steel grades and their features are described in a six-page folder published by Washington Steel Corp., Washington, Pa. **Bulletin 259** on "Architectural Stainless Engineering Data" also covers stainless steel application, economical design and fabrication.
For more details circle #196 on mailing card.
- Fully automatic, pneumatic tube systems for use as message or load-carrying carriers, and which are automatically controlled and directed to destination stations from a single main-line tube, are described and illustrated in the 52-page "General Information Handbook on Transittubes" available from The Grover Co., 25525 W. Eight Mile Rd., Detroit 40, Mich.
For more details circle #197 on mailing card.
- Information on **Designers mini-planner for "Food Facility Planning in Miniature"** is presented in a comprehensive form in an 8-page brochure available from Christine R. Pensinger Enterprises, 13551 Chandler Blvd., Van Nuys, Calif. Descriptive information with photographs of available templates and data on kits for schools and other institutions are included.
For more details circle #198 on mailing card.
- **Penmetal Movable Interior Partitions** are the subject of a 24-page catalog issued by Penn Metal Co., Inc., 40 Central St., Boston 9, Mass.
For more details circle #199 on mailing card.
- The "Janitrol school heating, ventilating and cooling system" is fully described and illustrated in a new brochure available from Janitrol Div., Surface Combustion Corp., P.O. Box 267, Columbus 16, Ohio. A complete design file of specification data is also available.
For more details circle #200 on mailing card.
- A pocket-sized device for measuring lighting efficiency is offered by Smithcraft Lighting, Chelsea 50, Mass. Known as the **Smithcraft Lightmeter**, it permits the grading of light right at the desk without charts, graphs or complicated instructions.
For more details circle #201 on mailing card.
- A colorful, 24-page, plastic-bound catalog with prices on the **Borroughs line of metal office furniture** is available from The Borroughs Mfg. Co., 3002 N. Burdick St., Kalamazoo, Mich. Bookcases, cabinets, library shelving, wrap racks, check racks and other office accessories are illustrated and described.
For more details circle #202 on mailing card.
- A 12-page catalog on **Portable Chalkboards and Bulletin Boards, No. F-30**, is available from E. W. A. Rowles Co., Arlington Heights, Ill. Products are fully described and include the new improved Eras-O-Matic eraser cleaner.
For more details circle #203 on mailing card.
- A recent film of a television network program based on **Pomona College's work with language laboratory instruction methods** is being made available by Magnetic Recording Industries, through Harold Marshall Publication Services, Inc., 171 Madison Ave., New York 16. The 16mm sound film received the Peabody award for its contribution to educational advancement.
For more details circle #204 on mailing card.
- A new salad recipe booklet for institutional food service is available from H. J. Heinz Co., P.O. Box 28, Pittsburgh 30, Pa. Titled "Profitable Salads," the pocket-sized 36-page booklet has more than 70 ideas and recipes for salads and salad dressings.
For more details circle #205 on mailing card.
- Informative discussions on "Fire-Resistant Construction in Modern Steel-Framed Buildings" is available, in editorial text form, in a 44-page booklet published by the American Institute of Steel Construction, Inc., 101 Park Ave., New York 17.
For more details circle #206 on mailing card.
- Over 400 stock self-sticking **Accident Prevention Signs** are described in a new eight-page illustrated catalog released by W. H. Brady Co., 727 W. Glendale Ave., Milwaukee 9, Wis. The signs are shown in color and dimensions are given.
For more details circle #207 on mailing card.
- An illustrated three-color brochure describing the **American-Standard line of Packaged Air Conditioners** is available from American-Standard Industrial Div., 8111 Tireman Ave., Detroit 32, Mich. **Bulletin 8525** illustrates construction features of units with capacities and physical data presented in tabular form.
For more details circle #208 on mailing card.
- Quick, convenient typing of special symbols and formulas needed in the teaching of chemistry is possible with an electric typewriter through **Remington Rand Interchangeable Typewriter Type**. A 12-page booklet (R-8964.3), available from Remington Rand Div. of Sperry Rand Corp., 315 Fourth Ave., New York 10, lists the characters available to save the time of hand-writing these symbols.
For more details circle #209 on mailing card.
- The attractive, modern **Trimline Surface-Mounted Door Closers** introduced by Norton Door Closer Co., Berrien Springs, Mich., are the subject of a four-page folder recently received. Printed in four-colors, the brochure gives factual information on the advantages of the new door closers, with technical information and full-color illustrations of installations.
For more details circle #210 on mailing card.
- "Aviation Education Materials and Services" are listed in a brochure available from United Air Lines, Inc., School & College Service, 5959 S. Cicero Ave., Chicago 38. Descriptive information on booklets, films, bulletin board materials and teaching aids is given.
For more details circle #211 on mailing card.
- Latest developments in water treating equipment and the operating principles of each are illustrated and described in **Bulletin 615** published by Elgin Softener Corp., 134 N. Grove Ave., Elgin, Ill. Included is a section on manual and automatic zeolite water softeners.
For more details circle #212 on mailing card.
- Future athletic events and other school activities may be recorded on the 1959-60 Sports Calendar, which corresponds with the regular school year, and is available from **Master Lock Co., Dept. J, Milwaukee 45, Wis.** The two-color calendar is 18½ by 24¼ inches and features protective metal strips and double eyelets for easy hanging.
For more details circle #213 on mailing card.
- Detailed information on Powermaster packaged automatic boilers is given in **Bulletin 1250**, published by Orr & Sembower, Inc., Morgantown Rd., Reading, Pa. The illustrated brochure explains oil, gas and combination gas/oil burner systems.
For more details circle #214 on mailing card.
- One draw-through and two blow-through electric cabinet heating units are described in **Bulletin No. 1801**, available from Ilg Electric Ventilating Co., 2850 N. Pulaski Road, Chicago 41. The three new heaters are designed for flexibility of arrangement and operation.
For more details circle #215 on mailing card.
- **Bulletin 2714**, published by Crouse-Hinds Co., Syracuse 1, N.Y., is a miniature edition of the company's Floodlight Catalog. Included in the 184-page pocket-sized book is information on How to Select Floodlights, General Purpose, Heavy Duty and Mercury Vapor Floodlights, Lighting for Hazardous Locations, Searchlights, Installation Suggestions and Lighting Calculations.
For more details circle #216 on mailing card.



Aluminum takes campus honors in beauty and economy

WITH SPANDRELS of jewel-bright colored glass, framed in silvery Alcoa® Aluminum, the new Medical Center, Basic Sciences Building, of West Virginia University, is among the most handsome of edifices on any American campus.

ADD THE aluminum in canopy fascia and soffits; in doors and door frames; on pipe railing, stair railing, ornamental railings and blackboard frames, and you account for more than 250,000 lb of aluminum in this striking building. Nor is beauty the *only* reason for the architect's selection of Alcoa Aluminum. The taxpayers' savings are handsome!

ALUMINUM saves on-site labor costs because it's light and easy to handle. It saves on maintenance because it never needs painting—it's the long-lived, outdoor metal that you install and forget for years.

CUSTOM-DESIGNED aluminum curtain walls and other Alcoa Aluminum products can save you and other beauty-minded, cost-conscious taxpayers many dollars today and through years to come. For specific information to meet your needs in your area, simply write: Aluminum Company of America, 1826-M Alcoa Building, Pittsburgh 19, Pa.

BUILDING
Medical Center, Basic Sciences Building, West Virginia University, Morgantown
ARCHITECT
C. E. Silling & Associates, Charleston, W. Va.
ASSOCIATE ARCHITECT
Schmidt, Garden & Erikson, Chicago, Ill.
GENERAL CONTRACTOR
Virginia Engineering Co., Newport News, Va.
ALUMINUM FABRICATOR
Newman Brothers, Inc., Cincinnati, Ohio



Your Guide
to the Best
in Aluminum Value

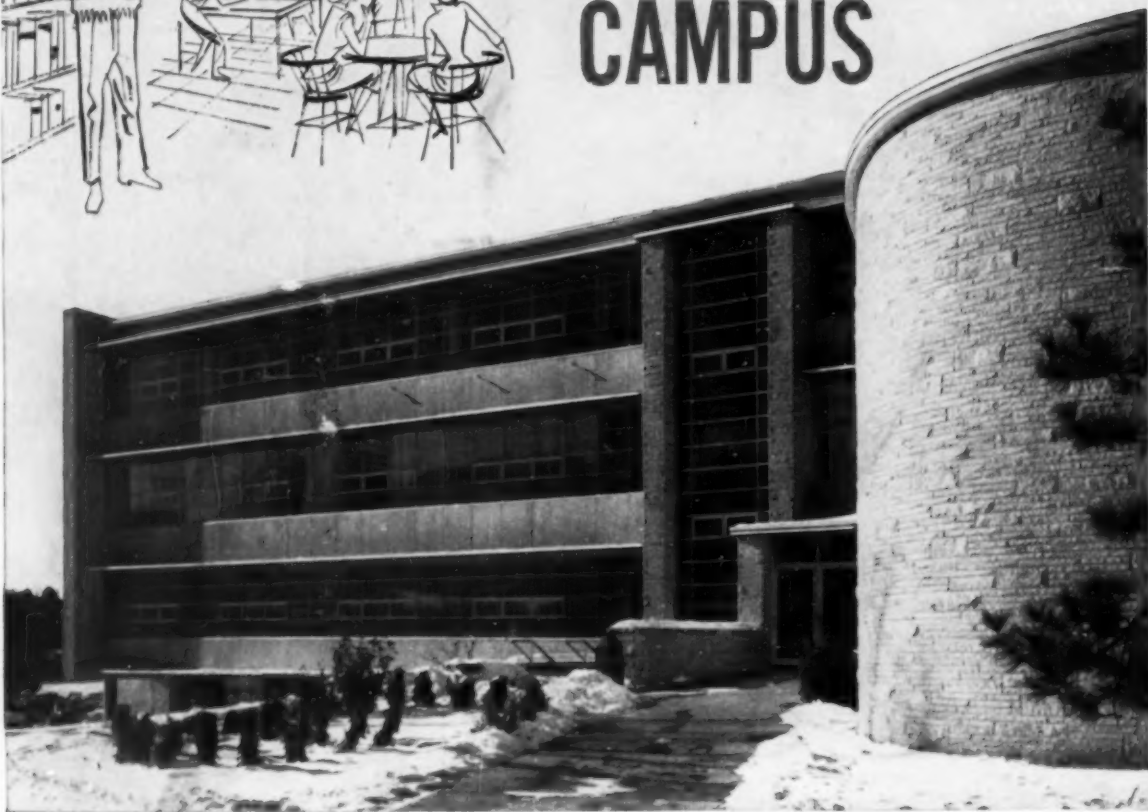


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COMFORT ON THE CAMPUS



New air-conditioned "K-State" Union — headquarters for student activities!

Planned for today's fast-paced campus life, the modern, functionally designed Student Union at Kansas State University provides complete social and recreational facilities for the student community.

As "living room" for the campus, this spacious air-conditioned structure was planned with comfort as a key consideration. Its temperature control requirements demand accuracy and flexibility to assure ideal conditions in its many special-purpose rooms, including lounges, game rooms, dining halls, ballrooms, library, theater, and meeting rooms. A specially engineered Johnson Pneumatic Control System meets the specific needs of this busy building, assuring year 'round comfort for every purpose while keeping heating and cooling costs at a minimum.

Hundreds of college and university buildings depend on Johnson Pneumatic Control Systems for accurate, economical regulation of air-conditioning, heating, and ventilating. Pneumatic controls not only provide complete flexibility to meet the most diversified requirements, but they are far easier and less costly to operate. And they require less maintenance and supervision than other types of temperature control.

Why not have your consulting engineer, architect, or local Johnson representative explain how the advantages of Johnson Control can be applied to the buildings on your campus? Johnson Service Company, Milwaukee 1, Wisconsin. Direct Branch Offices in Principal Cities.

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